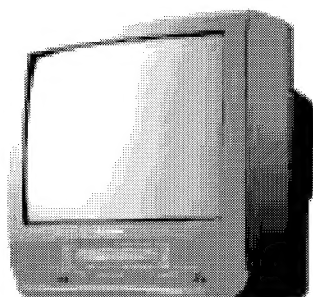


# Service Manual

## Combination VCR



**PV-C1323**  
**PV-C1333W**  
**PV-C1343**  
**PV-C1353W**  
**PV-C2023**  
**PV-C2033W**  
**PV-C2063**  
**PV-C1323-K**  
**PV-C1333W-K**  
**PV-C2023-K**  
**PV-C2523-K**

| ITEM  | SPECIFICATION  | 1  | 2 | 3 | 4   | 5                                       | ITEM  | SPECIFICATION  | 1   | 2   | 3 | 4 | 5 |
|---|--|--|---|---|---|---|---|--|---|---|---|---|---|
| VCR   | Video  | Head: 2 rotary heads helical scanning system                       |   |   |   |   | VCR   | Tape Speed   | SP: 1-5/16 i.p.s (33.35 mm/s), LP: 21/32 i.p.s (16.67 mm/s), SLP: 7/16 i.p.s (11.12 mm/s) |   |   |   |   |
|   |  | 4 rotary heads helical scanning system                             |   |   |   |   |   |  | Record/Playback Time: 8 hr. with 160 min. type tape used in SLP mode                      |   |   |   |   |
|   |  | Input Level: VIDEO IN Jack (Phono type) 1.0 Vp-p 75 Ω unbalanced   |   |   |   |   |   | Tape Format  | FF/REW Time: Less than 2-1/2 min. (120 min. type tape)                                    |   |   |   |   |
|   |  | Output Level: VIDEO OUT Jack (Phono type) 1.0 Vp-p 75 Ω unbalanced |   |   |   |   |   |  | *Note: FF/REW Time may be exceed specification according to tape condition.               |   |   |   |   |
|   |  | Signal-to-Noise Ratio: SP: more than 43 dB                         |   |   |   |   |   | FM Radio   | Band Range  | Tape width 12.7 mm (1/2 inch) high density tape |   |   |   |
|   | LP/SLP: more than 41 dB                                      |  |   |   |   | 87.5 MHz-108.1 MHz                      |   |  |   |   |   |   |   |
|   | Horizontal Resolution: Color/Monochrome: more: SP: 230 lines |  |   |   |   | DISPLAY                                 | Picture Tube  | 13 inch measured diagonal 90° deflection Picture Tube  |   |   |   |   |   |
|   | LP/SLP: 220 lines  |  |   |   |   |   |   | 20 inch measured diagonal 90° deflection Picture Tube  |   |   |   |   |   |
|   | Head: Normal Mono: 1 stationary head                         |  |   |   |   |   |   | 25 inch measured diagonal 110° deflection Picture Tube |   |   |   |   |   |
|   | Audio  | Input Level: AUDIO IN Jack (Phono type) -10 dBV 50 kΩ unbalanced   |   |   |   |   | Power   | Source: 120 V AC±12 V AC, 60 Hz±3 Hz                   |   |   |   |   |   |
| Frequency Response: Normal Mono: SP: 100 Hz-8 kHz       |  |  |   |   | Consumption: Approx. 69 W (Power on), Approx. 2.5 W (Power off) |   |   |  |   |   |   |   |   |
| LP: 100 Hz-6 kHz  |  |  |   |   | Approx. 110 W (Power on), Approx. 2.5 W (Power off)             |   |   |  |   |   |   |   |   |
| SLP: 100 Hz-5 kHz                                       |  |  |   |   | Approx. 130 W (Power on), Approx. 2.5 W (Power off)             |   |   |  |   |   |   |   |   |
| Signal-to-Noise Ratio: Normal Mono: SP: more than 42 dB |  |  |   |   | GENERAL   | Television System                       | EIA Standard (525 lines, 60 fields) NTSC Color Signal                 |  |   |   |   |   |   |
| LP/SLP: more than 40 dB                                 |  |  |   |   |   |   | Operating Condition   |  |   |   |   |   |   |
| Wow and Flutter: Normal Mono: SP: Less than 0.2 % WRMS  |  |  |   |   |   |   | 5 °C-40 °C (41 °F-104 °F) (Temperature)                               |  |   |   |   |   |   |
| Tuner   | LP: Less than 0.3 % WRMS                                     |  |   |   |   | Dimension (W x H x D)                   | 386 mm x 385 mm x 374 mm (15-3/16 inch x 15-3/16 inch x 14-3/4 inch)  |  |   |   |   |   |   |
|   | SLP: Less than 0.4 % WRMS                                    |  |   |   |   |   | 515 mm x 505 mm x 474 mm (20-5/16 inch x 19-7/8 inch x 18-11/16 inch) |  |   |   |   |   |   |
|   | Broadcast Channels: VHF 2-13, UHF 14-69                      |  |   |   |   |   | 634 mm x 590 mm x 464 mm (24-15/16 inch x 23-1/4 inch x 18-1/4 inch)  |  |   |   |   |   |   |
|   | CABLE Channels: Midband A through I (14-22)                  |  |   |   |   |   | 12 kg (26.4 lbs.)   |  |   |   |   |   |   |
|   | Superband J through W (23-36)                                |  |   |   |   |   | 23 kg (50.6 lbs.)   |  |   |   |   |   |   |
| Hyperband AA-EEE (37-64)                                |  |  |   |   | 31 kg (68.2 lbs.)   |   |   |  |   |   |   |   |   |
| Lowband A-5-A-1 (95-99)                                 |  |  |   |   | Solder  | This model uses lead free solder (PbF). |   |  |   |   |   |   |   |
| Special CABLE channel 5A (01)                           |  |  |   |   |   |   |   |  |   |   |   |   |   |
| Ultraband 65-94, 100-125                                |  |  |   |   |   |   |   |  |   |   |   |   |   |

1. PV-C1323/ PV-C1323-K/ PV-C1333W/ PV-C1333W-K
2. PV-C1343/ PV-C1353W
3. PV-C2023/ PV-C2023-K/ PV-C2033W
4. PV-C2063
5. PV-C2523-K

Weight and dimensions shown are approximate.  
 Designs and specifications are subject to change without notice.

## ⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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# 1 SAFETY PRECAUTIONS

## GENERAL GUIDELINES

### 1. IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  $\Delta$  in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-RADIATION, shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

2. An Isolation Transformer should always be used during the servicing of Combination VCR whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks. It will also protect Combination VCR from being damaged by accidental shorting that may occur during servicing.
3. When servicing, observe the original lead dress, especially the lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
4. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shield, and isolation R-C combinations are properly installed.
5. Before turning the receiver on, measure the resistance between B+ line and chassis ground. Connect (-) side of an ohmmeter to the B+ lines, and (+) side to chassis ground. Each line should have more resistance than specified, as follows :

(For model with 13 inch CRT)

| B+ Line | Minimum Resistance                 |
|---------|------------------------------------|
| 130.0 V | 1 k $\Omega$ (Cold chassis ground) |
| 23.5 V  | 180 $\Omega$ (Cold chassis ground) |
| 13.0 V  | 110 $\Omega$ (Cold chassis ground) |

(For model with 20 inch CRT)

| B+ Line | Minimum Resistance                 |
|---------|------------------------------------|
| 130.0 V | 1 k $\Omega$ (Cold chassis ground) |
| 21.5 V  | 180 $\Omega$ (Cold chassis ground) |
| 15.9 V  | 110 $\Omega$ (Cold chassis ground) |

(For model with 25 inch CRT)

| B+ Line | Minimum Resistance                 |
|---------|------------------------------------|
| 125.0 V | 1 k $\Omega$ (Cold chassis ground) |
| 27.0 V  | 180 $\Omega$ (Cold chassis ground) |
| 17.0 V  | 110 $\Omega$ (Cold chassis ground) |

6. When the TV set is not used for a long period of time, unplug the power cord from the AC outlet.
7. Potentials, as high as 25.0 kV (For model with 13 inch CRT) or 30.0 kV (For model with 20 inch CRT) or 32.0 kV (For model with 25 inch CRT) are present when this TV set is in operation. Operation of the TV set without the rear cover involves the danger of a shock hazard from the TV set power supply. Servicing should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the picture tube to the CRT

ground of receiver before handling the tube.

8. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

### LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. For physically operated power switches, turn power on. Otherwise skip step 2.
3. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the receiver, such as screwheads, connectors, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1 M $\Omega$  and 12 M $\Omega$ . When the exposed metal does not have a return path to the chassis, the reading must be infinity.

### LEAKAGE CURRENT HOT CHECK

1. Plug the AC cord directly into the AC outlet.

Do not use a isolation transformer for this check.

2. Connect a 1.5 k $\Omega$ , 10 W resistor, in parallel with a 0.15  $\mu$ F capacitor, between each exposed metallic part on the set and a good earth ground , as shown in Figure 1.
3. Use an AC voltmeter, with 1 k $\Omega$ /V or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 V RMS.

A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks. Leakage current must not exceed 1/2 mA. In case a measurement is outside of the limits specified, there is a possibility of shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

### Hot-Check Circuit

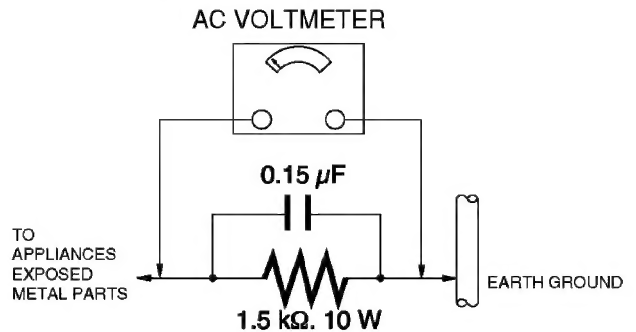


Figure 1

## 2 X-RADIATION

### WARNING :

1. The potential source of X-Radiation in TV sets is the High Voltage section and the picture tube.
2. When using a picture tube test fixture for service, ensure that the fixture is capable of handling 25.0 kV (For model with 13 inch CRT) or 30.0 kV (For model with 20 inch CRT) or 32.0 kV (For model with 25 inch CRT) without causing X-Radiation.

### NOTE :

It is important to use an accurate periodically calibrated high voltage meter.

1. Reduce the brightness to minimum.
2. Set the SERVICE switch to SERVICE .
3. Measure the High Voltage. The meter reading should indicate 23.5 kV $\pm$ 1.5 kV (For model with 13 inch CRT) or 28.5 kV $\pm$ 1.5 kV (For model with 20 inch CRT) or 30.0 kV $\pm$ 2.0 kV (For model with 25 inch CRT).

If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.

4. To prevent an X-Radiation possibly, it is essential to use the specified picture tube.

### HORIZONTAL OSCILLATOR DISABLE CIRCUIT TEST

#### SERVICE WARNING :

The test must be made as a final check before set is returned to the customer.

1. With the rear cover removed, supply about a 90 V AC power source to the set, turn on the set.
2. Set the customer controls to normal operating positions.
3. Short both sides of R804 on the Main circuit board with a jumper wire. Confirm that the picture goes out of horizontal sync.
4. If this does not occur, the horizontal oscillator disable circuit is not operating. Follow the Repair Procedures of horizontal oscillator disable circuit before the set is returned to customer.

### REPAIR PROCEDURES OF HORIZONTAL OSCILLATOR DISABLE CIRCUIT

1. Connect a DC voltmeter between capacitor C513 (+) on the Main circuit board and chassis ground.
2. If approximately +21.0 V (For model with 13 inch CRT) or +21.9 V (For model with 20 inch CRT) or +23.5 V (For model with 25 inch CRT) is not present at that point when 120 V AC is applied, find the cause. Check R518 (For model with 20 inch CRT TV Stereo/25 inch CRT), R503, R5504, R5505, D503, C513, C5507 and J5501.
3. Carefully check above specified parts and related circuits and parts. When the circuit is repaired, try the horizontal oscillator disable circuit test again.

### CIRCUIT EXPLANATION

#### HORIZONTAL OSCILLATOR DISABLE CIRCUIT

The positive DC voltage, supplied from the D503 cathode for monitoring high voltage, is applied to the IC5301 Pin11 through R518, R503 and R5504. Under normal conditions, the voltage at IC5301 Pin 11 is less than approx 3 V. If the high voltage at Flyback Tr Pin 5 exceeds the specified voltage, the positive DC voltage which is supplied from the D503 cathode also increases. The increased voltage is applied to IC5301 Pin11 through R518, R503 and R5504. Due to the increased voltage at IC5301 Pin11, the horizontal oscillator frequency increases, the picture goes out of horizontal sync, the beam current decreases and the picture becomes dark in order to keep X-radiation under specification.

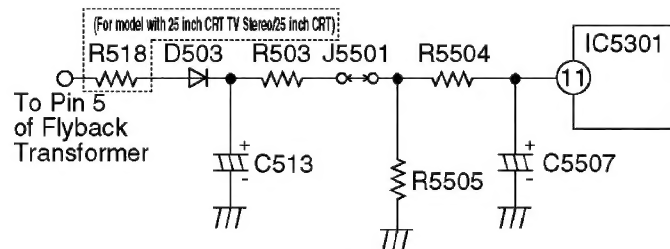


Figure 2



### 3 PREVENTION OF ELECTROSTATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors are semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an antistatic solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

**CAUTION:**

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

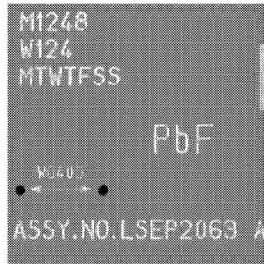
**"NOTE to CATV system installer :**

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical."

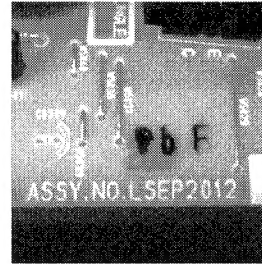
## 4 ABOUT LEAD FREE SOLDER (PbF)

### Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF stamp or printing on the PCB.  
(Please refer to figures.)



Printed case



Stamped case

### CAUTION:

- Pb free solder has a higher melting point than standard solder;  
Typically the melting point is 50 °F - 70 °F (30 °C - 40 °C) higher.  
Please use a soldering iron with temperature control and adjust it to 700 °F±20 °F (370 °C± 10 °C).  
In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100 °F/600 °C).
- All products with the printed circuit board with PbF stamp or printing must be serviced with lead free solder.  
When soldering or unsoldering, completely remove all of the solder from the pins or solder area,  
and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

### Recommendations

Recommended lead free solder composition is Sn96.5 Ag3.0 Cu0.5.

# 5 SERVICE NOTES (PLEASE READ)

## 5.1. SERVICE NOTES

### 5.1.1. SIMPLIFIED FAULT FINDING DATA

Simplified Self-Diagnostic System facilitates finding the cause of the fault. A 4 digit for fault code and communication for I<sup>2</sup>C bus code will be displayed on TV screen.

The Simplified Fault finding data is stored in the Memory IC (IC6004). This data is cleared after it is displayed, and then the POWER button is pressed back on.

1. With power turned off, press FF and REW buttons on unit together for over 3 seconds.

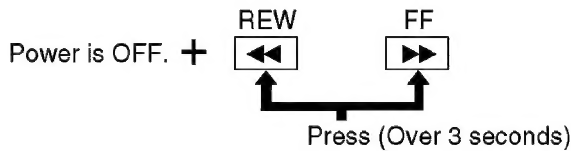


Fig. 1-1

2. TV power goes on and the unit goes into service mode. 4 digit for fault code and communication for I<sup>2</sup>C bus code will be displayed.

#### Code Digit Position

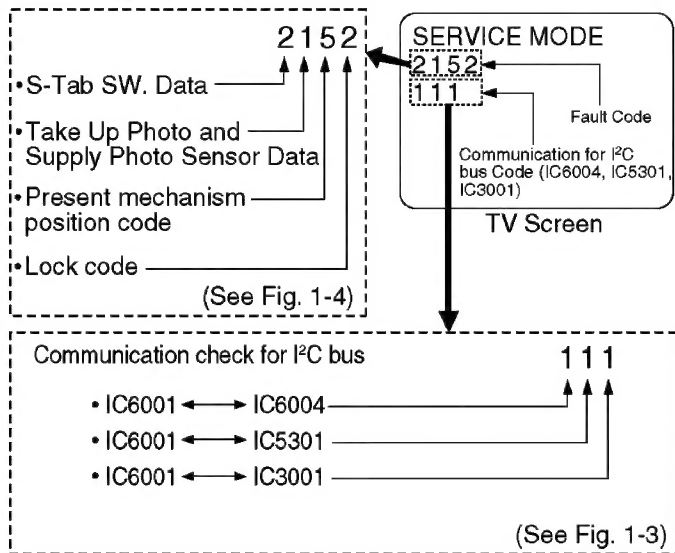


Fig. 1-2

#### (Communication check for I<sup>2</sup>C bus)

| Explanation of Codes   | Code No. |
|--|----------|
| Communication check for I <sup>2</sup> C bus<br>(IC6001 ↔ IC6004) ----- NG<br>OK | 0 1      |
| Communication check for I <sup>2</sup> C bus<br>(IC6001 ↔ IC5301) ----- NG<br>OK | 0 1      |
| Communication check for I <sup>2</sup> C bus<br>(IC6001 ↔ IC3001) ----- NG<br>OK | 0 1      |

Fig. 1-3

#### (Fault Code)

| Explanation of Codes   | Code No.                  |
|--|---------------------------|
| <b>S-Tab SW. Data</b><br>• S-Tab SW. is off.<br>• S-Tab SW. is on.   | 1 2                       |
| <b>Take Up and Supply Photo Sensor Data</b><br>• No light detected at either sensor.<br>• Take Up Photo Sensor detected at beginning of tape.<br>• Supply Photo Sensor detected at end of tape.<br>• Light detected at both sensors.   | 1 2 3 4                   |
| <b>Present Mechanism Position Code</b><br><br>Mechanism Position is indicated.<br>(Refer to Fig. 1-5.)   | 1 2 3 4 5 6 7 8 9 A B C D |
| <b>Lock Code (See Note)</b><br>• VCR is not in shut-off condition.<br>• Reel lock.<br>• Cylinder lock.<br>• Exceeds loading/unloading time.<br>(Mechanism Lock)<br>• Exceeds Cassette loading/unloading time.<br>(Cassette Lock)<br>Tape Unloading (direction)<br>Tape Loading (direction) | 0 1 2 3 1 2 4 4           |

Fig. 1-4

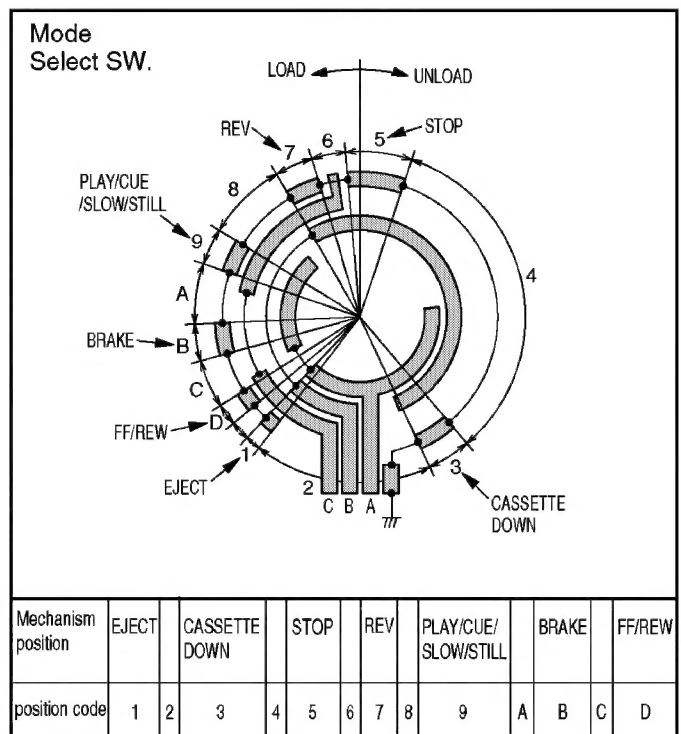


Fig. 1-5

3. Press any operation button except for POWER on either the unit, or the remote to detect that a key has been pressed.

The 1st digit changes to "0" only when key is detected.

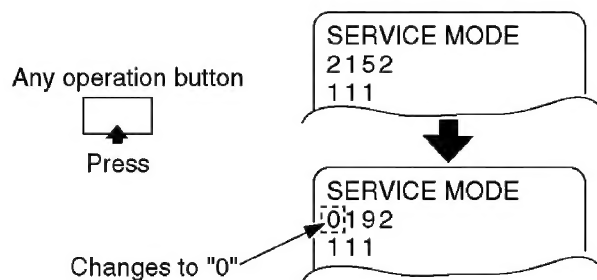


Fig. 1-6

**Note:**

When 1 to 4 listed in Lock code occurs, the VCR stops and all VCR function buttons except for power become non-operational.

## 5.1.2. USAGE SCREEN MODE

Function displayed on the TV monitor:

- the total elapsed "Power on" time (in days)
- the total elapsed "Cylinder rotation" time (in hours)

1. With power turned on and no cassette, press STOP/EJECT button on unit and 7 key on remote together.

The USAGE SCREEN will be displayed on the TV Monitor.

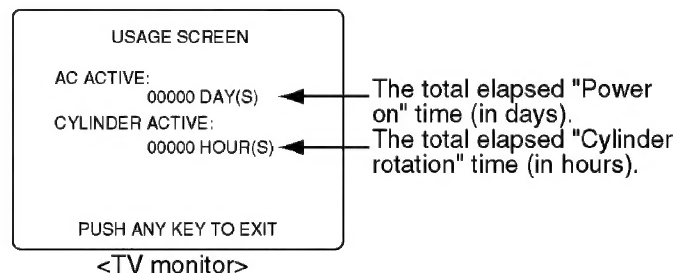


Fig. 1-7

**Note:**

1. After replacing the Cylinder Unit, press COUNTER RESET button on remote in this mode. Only Total elapsed "Cylinder rotation" time (in hours) will be cleared to 0.
2. To release from Usage Screen Mode, press any operation button on unit or insert a cassette tape in this mode. The unit will return to normal operation mode.

### 5.1.3. SERVICE POSITION

#### 5.1.3.1. Service Position

| Service Position     | Purpose   |
|----------------------|---|
| Service Position (1) | Mechanism check<br>Mechanical adjustment<br>Electrical adjustment |
| Service Position (2) | TV/VCR Main C.B.A. check  |

**CAUTION:**

**HOT CIRCUIT** (Primary circuit) exists on the TV/VCR Main C.B.A. Use extreme care to prevent accidental shock when servicing.

#### 5.1.3.2. Service Position (1)

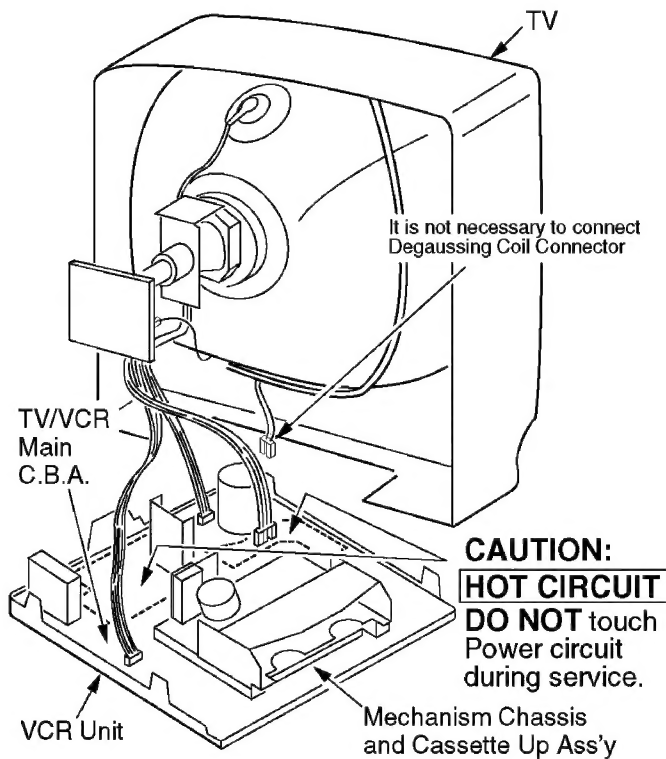


Fig. 2-1

#### 5.1.3.3. Service Position (2)

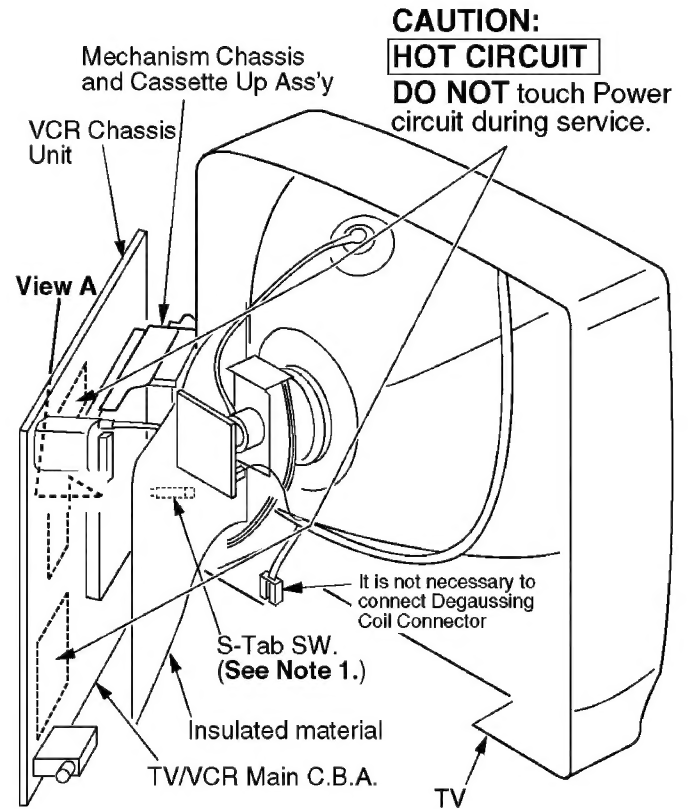
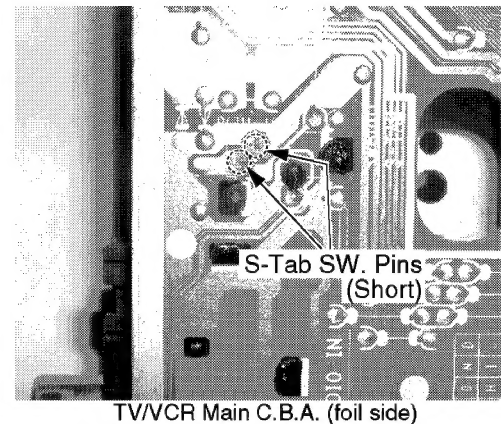


Fig. 2-2

**Note:**

1. It is possible that the S-Tab SW. may not work correctly in Service Position (2). (Recording can not be done). In this case, short the S-Tab SW. Pins on the foil side of the TV/VCR Main C.B.A. to turn this SW. on.



View A

Alternative method:  
Cover the S-Tab SW. with masking tape.

Fig. 2-3

### 5.1.4. HOT CIRCUIT

Primary circuit exists on the TV/VCR Main C.B.A.

This circuit is identified as "HOT" on the C.B.A. and in the Service Manual. Use extreme care to prevent accidental shock when servicing.

### 5.1.5. SERVICE MODE

In order to inhibit detection of the Supply & Takeup Photo Transistors, Reel Sensor, and Cylinder Lock, press and hold STOP/EJECT, PLAY/REPEAT, and CH DOWN buttons on the unit together over 5 seconds in power on condition.

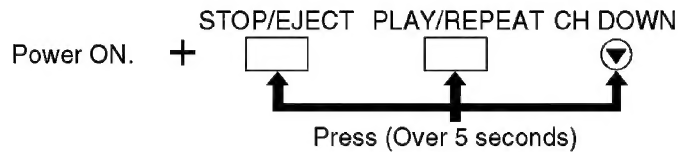


Fig. 3

The unit goes into service mode.

In this mode, Mechanism movement can be confirmed. When removing Cassette Up Ass'y, it can be confirmed without a cassette.

To release from this mode, press POWER button off or disconnect AC Plug.

### 5.1.6. DEFEATING THE AUTO TRACKING

To defeat the Auto Tracking Function, place the instrument in the STOP mode and place a jumper between TP6003 and TP6009 on the TV/VCR Main C.B.A. The tracking will be placed in the neutral position.

### 5.1.7. CAUTION FOR INSTALLATION OF VCR UNIT

#### CAUTION:

**Opener Lever may be damaged when VCR Unit is installed, with Cassette Door-Lid and Opener Lever of Cassette Up Ass'y set incorrectly.**

#### Install the VCR Unit as follows:

1. Swing the Cassette Door-Lid all the way open until the Cassette Door tab clears the Opener Lever.
2. Make sure that all guide tabs are aligned properly. Then, press the VCR Unit straight in.

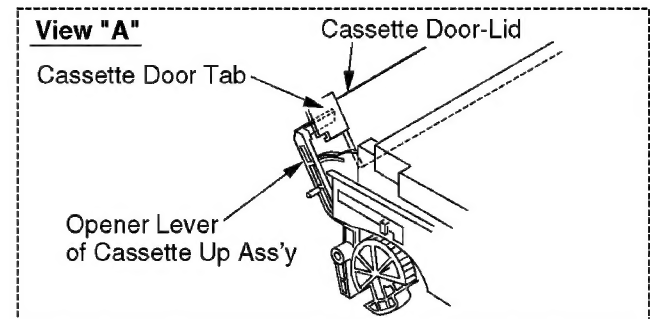
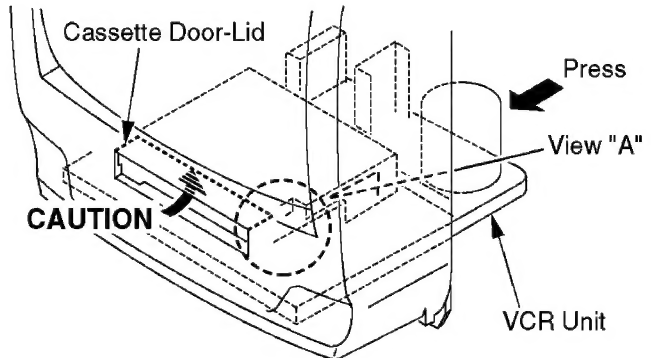


Fig. 4



## 5.1.8. METHOD FOR LOADING/UNLOADING OF MECHANISM

### 5.1.8.1. (Manual Method)

Turn the Loading Gear clockwise (for loading) or counterclockwise (for unloading) using needlenose pliers etc.

**Note:**

**Do not use this method if Mechanism is jammed or locked.**

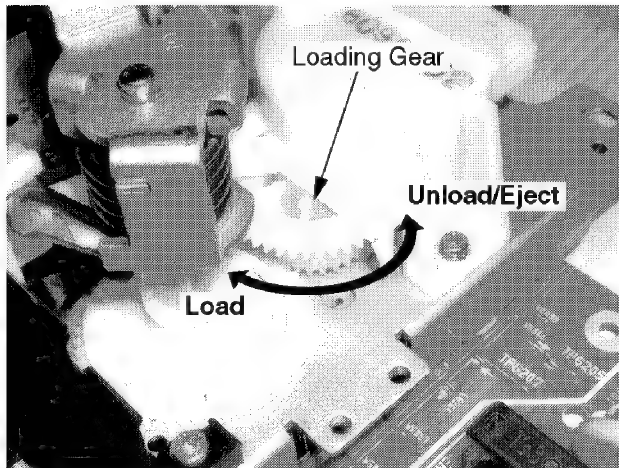


Fig. 6-1

### 5.1.8.2. (Electrical Method)

Apply +10.0 V DC Power Supply to the Loading Motor terminals.

**Loading**

DC + to Portion "a," DC - to Portion "b"

**Unloading**

DC - to Portion "a," DC + to Portion "b"

**CAUTION:**

Before applying DC Power Supply, be sure to cut the Motor Leads with a cutter, etc.

Otherwise, the Loading Motor Drive IC (IC2501) may be damaged.

**CAUTION:**  
Be sure to cut the Motor Leads with a cutter, etc.

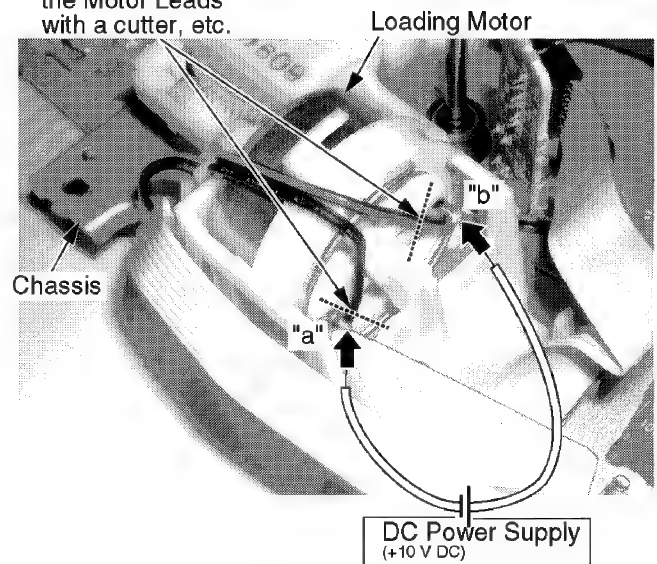


Fig. 6-2

#### 5.1.8.2.1. WHEN LOADING WITHOUT A CASSETTE

When loading without a cassette, push Portion "a" on the Holder Unit of Cassette Up Ass'y so that the Lever clear the First Tab and Second Tab.

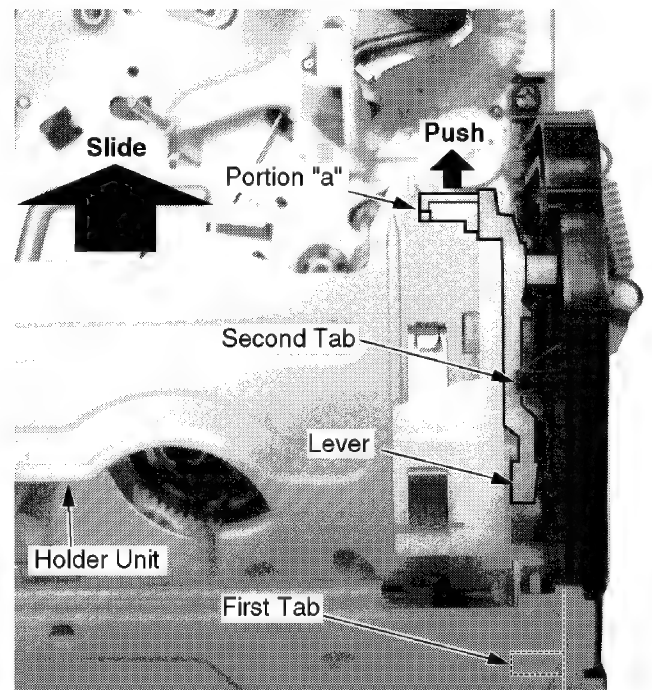


Fig. 6-3

## 5.1.9. HOW TO REMOVE A JAMMED TAPE

### CAUTION:

Wiper Arm Unit may be damaged or its spring may be out of place when the jammed tape is removed by force.

Remove a jammed tape as follows:

### 5.1.9.1. Manual Method

When a tape jam is encountered, check the tape loading condition and use the following procedure to remove a tape jam.

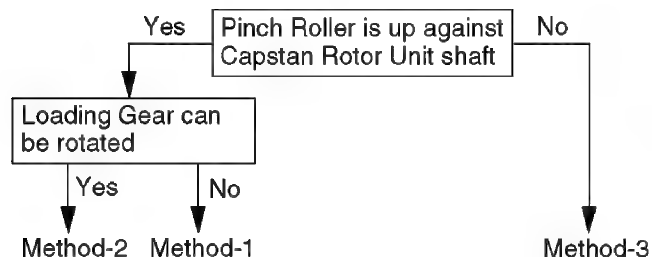
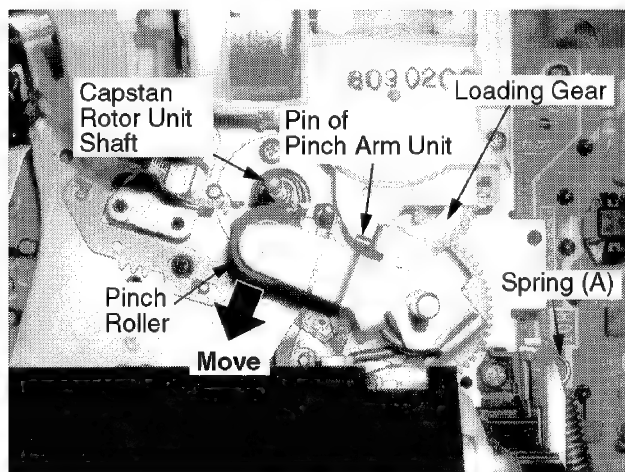


Fig. 7-1

#### 5.1.9.1.1. Method -1:

1. Move the Pinch Roller Unit out by unhooking the Pin of Pinch Arm Unit so that the Pinch Roller is separated from the Capstan Rotor Unit shaft.



Top View

Fig. 7-2

2. Remove the tape from the tape path.
3. Rewind the tape into the cassette by rotating the Center Clutch Unit counterclockwise.
4. Unhook Spring (A) of the Drive Rack Arm.
5. Remove Screw (A).
6. Lift the Cassette Up Ass'y. While pulling the Cassette Up Ass'y out far enough so that it clears the Drive Rack Arm, slide the Drive Rack Unit as indicated by the arrow to remove the cassette tape from the Cassette Up Ass'y.

7. Check the cause of mechanical trouble and repair.

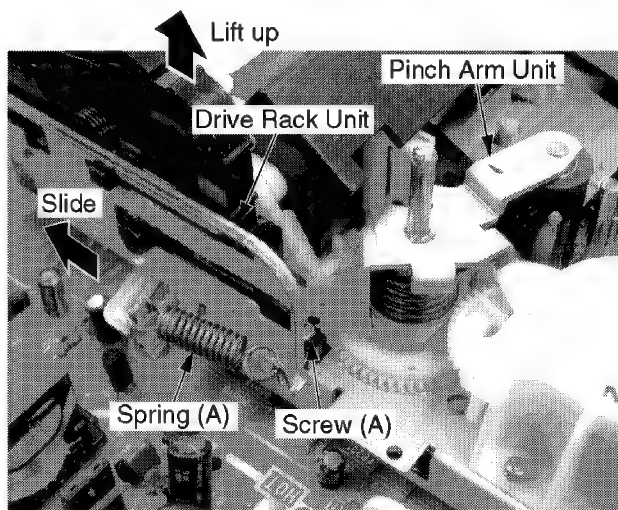


Fig. 7-3

#### 5.1.9.1.2. Method -2:

1. Rotate Loading Motor counterclockwise with needlenose pliers, etc. so that the Pinch Roller is separated from the shaft of the Capstan Rotor Unit.
2. Perform Step 2 through Step 7 of Method -1.

#### 5.1.9.1.3. Method -3:

1. Perform Step 2 through Step 7 of Method -1.

### Note:

After repairing mechanical trouble, make sure that all gear alignments are correct, especially the Wiper Arm Unit and Drive Rack Unit of Cassette Up Ass'y. (Refer to "EJECT Position Confirmation" in DISASSEMBLY/ASSEMBLY PROCEDURES.)

### 5.1.9.2. Electrical Method

Electrical method can only be performed when the mechanism is moved by rotating the Loading Gear.

#### CAUTION:

1. Before applying DC Power Supply, be sure to cut the Motor Leads with a cutter, etc.  
Otherwise, the Loading Motor Drive IC (IC2501) may be damaged.
2. If loading does not start in approx. 2 seconds after DC Power Supply is applied, DO NOT continue to apply DC Power Supply. Instead, perform "Manual Method."

1. Be sure to cut the Motor Leads with a cutter, etc.
2. Apply +10.0 V DC Power Supply to the Loading Motor terminals.
3. When the Loading Posts reach the fully unloaded position, remove the Power Supply.

#### CAUTION:

Be sure to cut the Motor Leads with a cutter, etc.

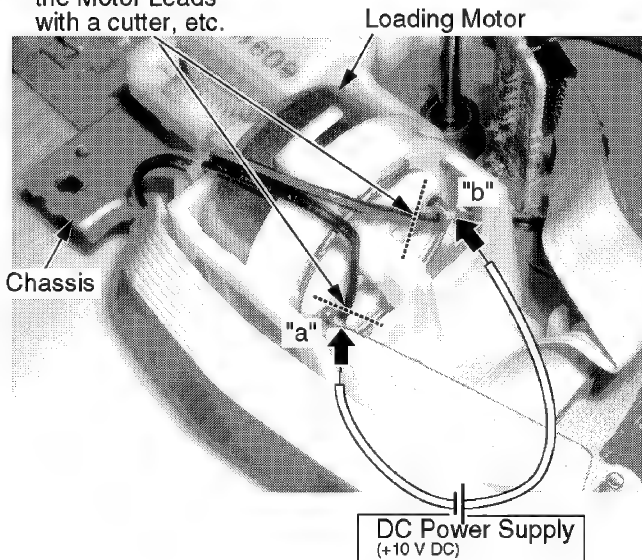


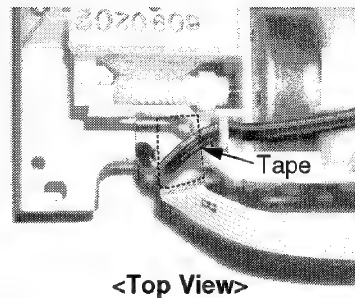
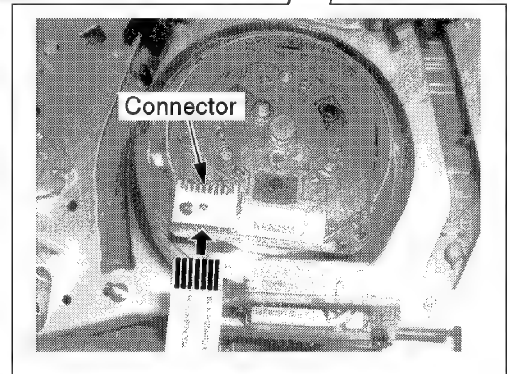
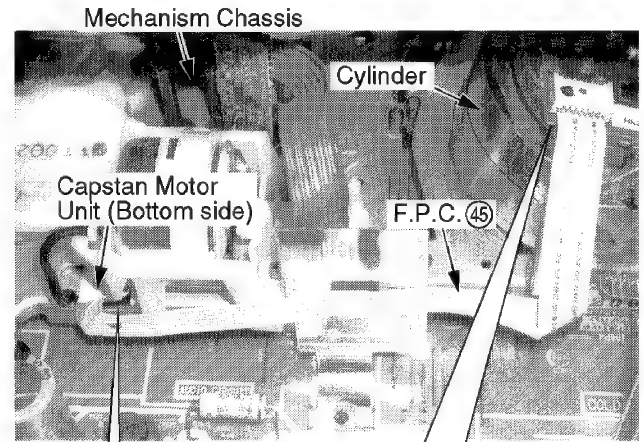
Fig. 8

4. Rewind the tape into the cassette by turning the Center Clutch Unit counterclockwise.
5. Eject the cassette by applying +10.0 V DC Power Supply again.

### 5.1.10. F.P.C. CONNECTION NOTE

#### 5.1.10.1. F.P.C. between the Capstan Motor and the Cylinder

Be careful with the direction of F.P.C. to connector as shown.



<Top View>

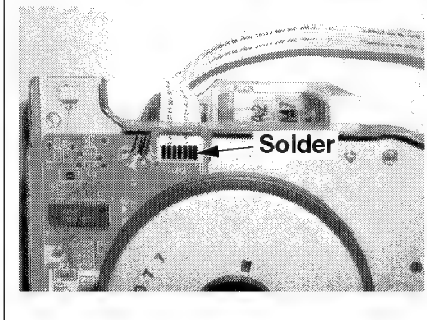


Fig. 9

## 5.1.11. WIRE AND LEAD POSITION DIAGRAM

After servicing, make sure that all wires, leads, and clampers are placed in their original position. It is important for the best operation of the unit.

**Note:**

No lead wires or flat cables should touch any heating parts or the Heat Sink Plate.  
Use extreme care especially for followings.

(Model PV-C2063 is shown)

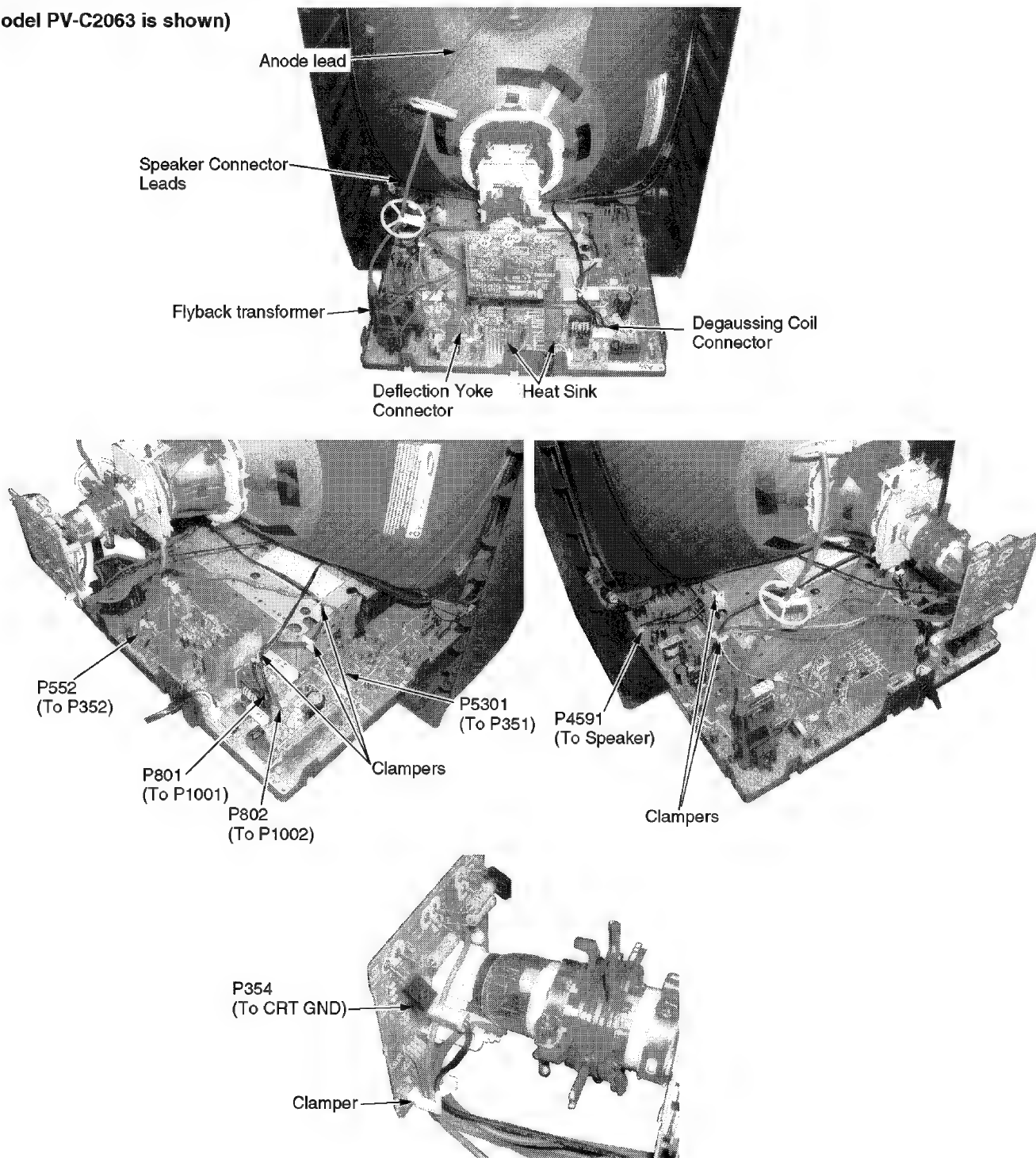


Fig. 10

### 5.1.12. HOW TO SET TRACKING TO THE NEUTRAL POSITION

Ejecting the cassette tape and then reinserting it will reset the tracking to the Neutral position.

### 5.1.13. BLACK SCREWS ON THE CHASSIS

Black Screws are used on the Mechanism Chassis to identify screws that require adjustment.

### 5.1.14. HOW TO RESET ALL COMBINATION VCR MEMORY FUNCTIONS

To reset (clear) the select language, channel auto set and set clock functions to their initial power on condition (power on, no cassette inserted), hold down the PLAY and FF buttons on the unit together for more than 5 seconds.

Power will shut off.

### 5.1.15. HOW TO CONFIRM AUTO CLOCK SET FEATURE

1. Connect an RF cable from the output of one unit to the input of the test unit.
2. Select corresponding RF channels.
3. Playback a recording of P.B.S. channel including clock set data and confirm this feature.

### 5.1.16. VARIABLE VOLTAGE ISOLATION TRANSFORMER

An Isolation Transformer should always be used during the servicing of Combination VCR whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks. It will also protect Combination VCR from being damaged by accidental shorting that may occur during servicing.

Also, when troubleshooting the above type of Power Supply Circuit, a variable isolation transformer is required in order to increase the input voltage slowly.

### 5.1.17. SPECIAL NOTE

All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the

"ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.

### 5.1.18. MODEL NO. IDENTIFICATION MARK

Use Marks shown in the chart below to distinguish the different models included in this Service Manual.

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| PV-C2523-K  | K    |
| NOT USED    | PT   |

**Note:**

Refer to Item 3 of Schematic Diagram Notes of Schematic Diagram and Circuit Board Layout Notes, for mark "PT."

## 6 DISASSEMBLY/ASSEMBLY PROCEDURES

### 6.1. CABINET SECTION

#### 6.1.1. Disassembly Flowchart

Perform all disassembly procedures in the order described in the "Disassembly Flowchart" shown below. When reassembling, use the reverse procedure.

#### CAUTION:

Disconnect AC plug before disassembly.

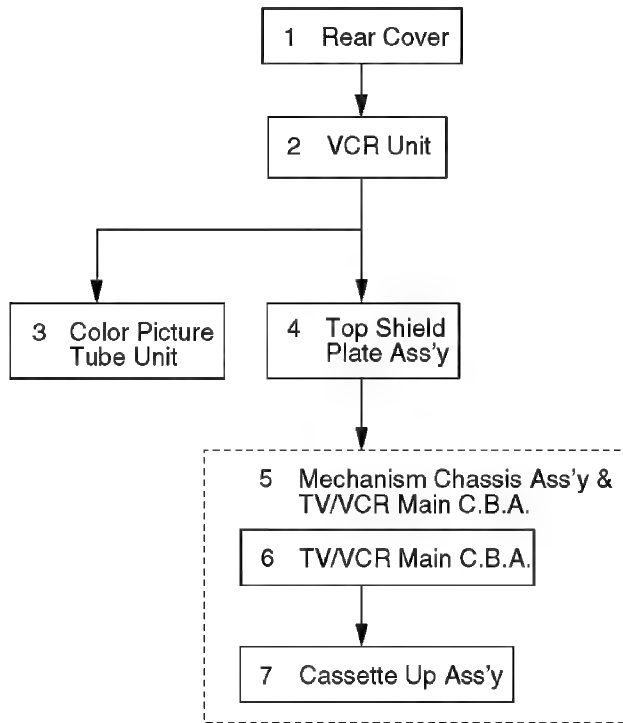


Fig. D1

#### 6.1.2. Disassembly Method


| STEP No. | Ref. No. | PART   | Fig. No. | REMOVE   | Note |
|----------|----------|--|----------|--|------|
| 1        | (73)     | Rear Cover                                   | D2       | 6 (446), 8 (446) (For model with 25 inch CRT)  | ---  |
| 2        | -        | VCR Unit                                     | D4<br>D5 | Anode Cap, P354, CRT C.B.A., Deflection Yoke Connector, Degaussing Coil Connector, Clampers, P4591, Tabs | 1    |
| 3        | (48)     | Color Picture Tube Unit                      | D2       | 4 (445)  | 2    |
| 4        | (91)     | Top Shield Plate Ass'y                       | D3       | 4 (432), (405)   | ---  |
| 5        | -        | Machanism Chassis Ass'y & TV/VCR Main C.B.A. | D3       | 2 (460), 2 (450), Locking Tabs,  | 3    |
| 6        | (10)     | TV/VCR Main C.B.A.                           | D3       | P3001, P6201, P4001, P4092   | 4    |
| 7        | (61)     | Cassette Up Ass'y                            | D3       | 3 (449), Locking Tab, Spring   | 5    |



| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| PV-C2523-K  | K    |

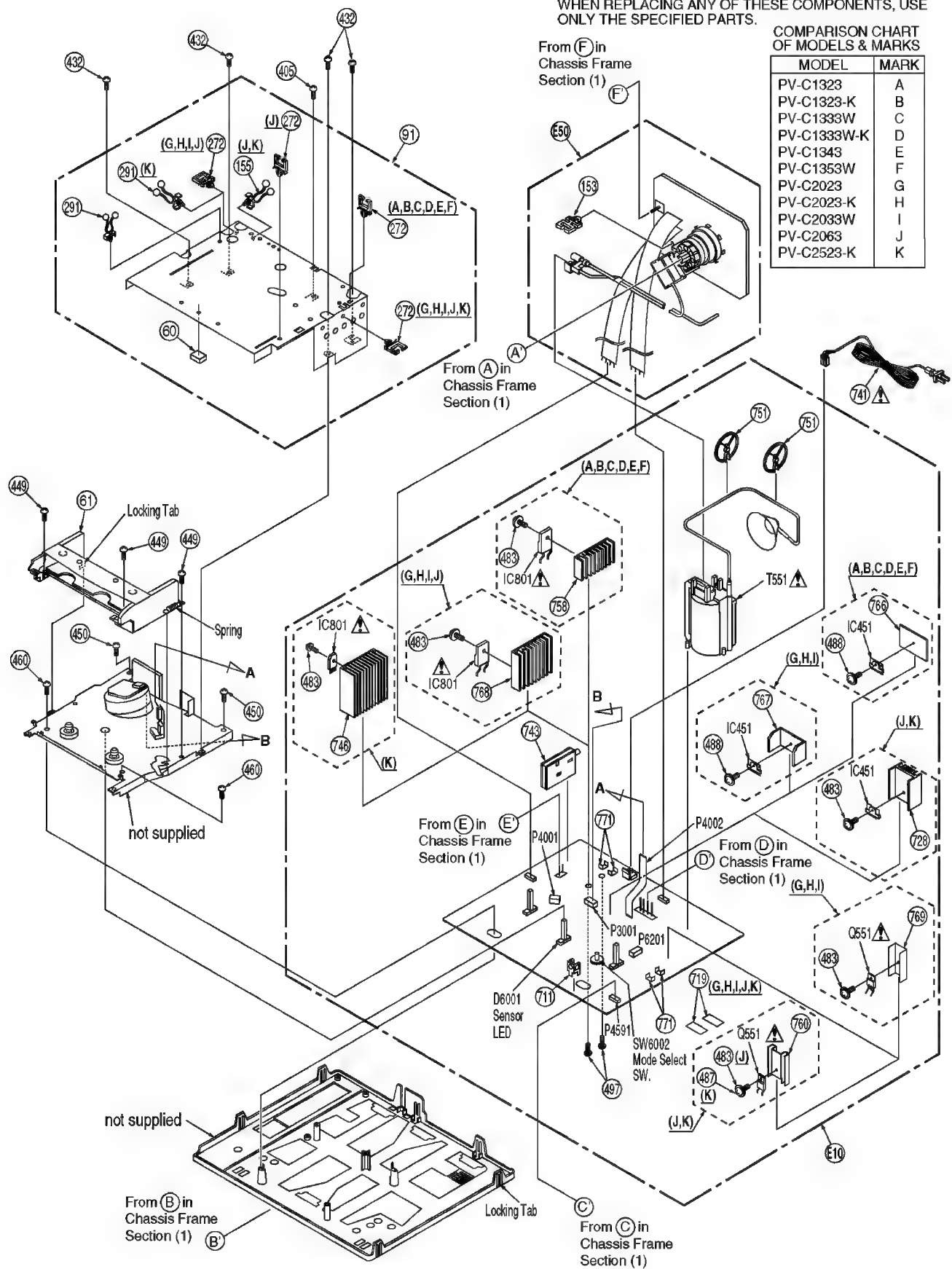


## IMPORTANT SAFETY NOTICE

COMPONENTS IDENTIFIED BY THE SIGN  HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

## COMPARISON CHART OF MODELS & MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| PV-C2523-K  | K    |



**Fig. D3**

### 6.1.2.1. Notes in chart

#### 1. Removal of VCR Unit

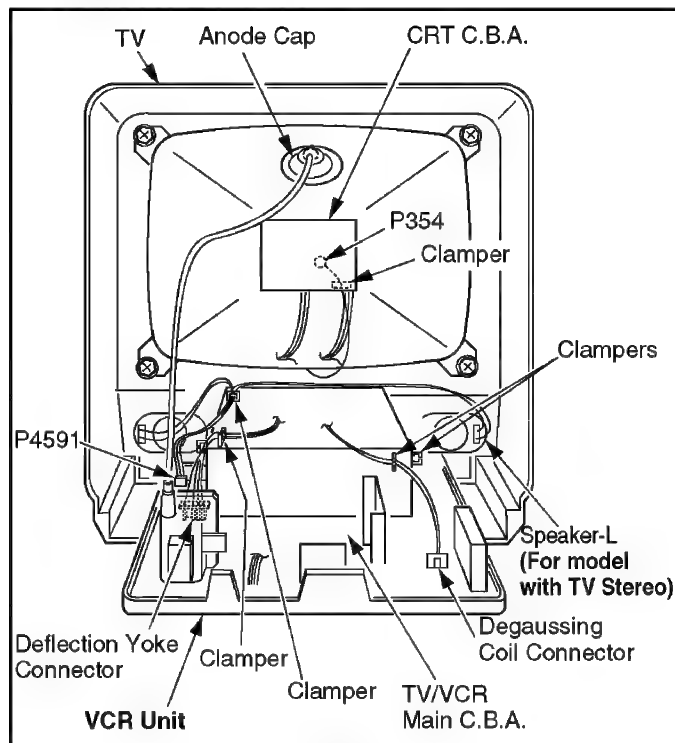


Fig. D4

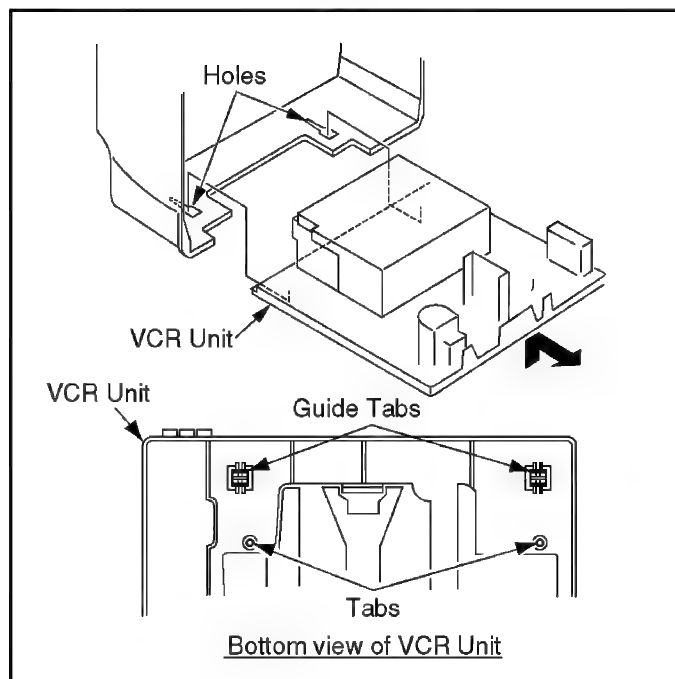


Fig. D5

#### Installation of VCR Unit

##### CAUTION:

Opener Lever may be damaged when VCR Unit is installed, with Cassette Door-Lid and Opener Lever of Cassette Up Ass'y set incorrectly.

- When installing the VCR Unit, swing the Cassette Door-Lid all the way open until the Cassette Door tab clears the Opener Lever.
- Make sure that all guide tabs are aligned properly. Then, press the VCR Unit straight in.

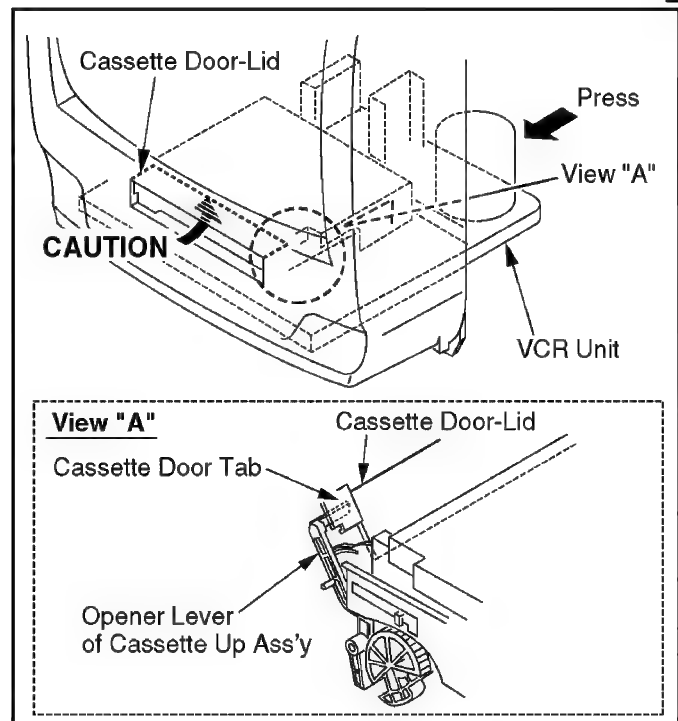


Fig. D6

#### 2. Removal of Color Picture Tube Unit

Place the Unit face down on a soft cloth before removing the Color Picture Tube Unit.

#### 3. Installation of Mechanism Chassis Ass'y and TV/VCR Main C.B.A.

When installing 2 Screws (449), slide the Holder Unit of the Cassette Up Ass'y (Refer to "WHEN LOADING WITHOUT A CASSETTE" in SERVICE NOTES) to tighten screws. Then, slide it back to the EJECT Position.

#### 4. Removal of TV/VCR Main C.B.A.

When disconnecting the P4002 Flat Cable from the Connector P4092 on the AC Head, care must be taken to hold the Connector P4092 stable to avoid damaging it.

Otherwise, a satisfactory picture and secure precise tracking will not be achieved. (Refer to "TAPE INTERCHANGEABILITY ADJUSTMENT" in MECHANICAL ADJUSTMENT.)

#### Installation of TV/VCR Main C.B.A.

- Make sure the Mode Select SW. on the TV/VCR Main C.B.A. is in **EJECT** position. If not, rotate the Mode Select SW. until the alignment projection is in the **EJECT** Position.

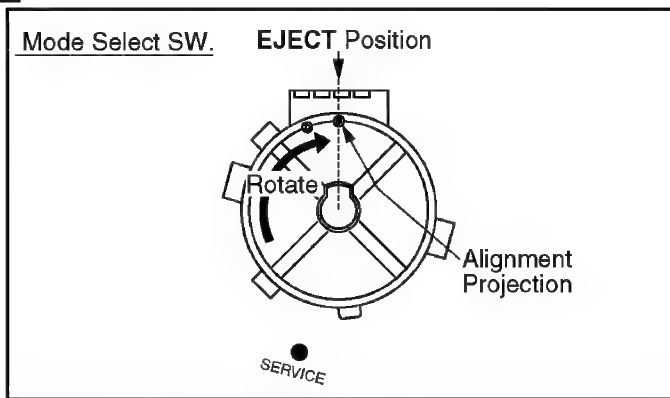


Fig. D7

- b. Install the Mechanism Chassis and Cassette Up Ass'y straight onto the TV/VCR Main C.B.A. so that the Sensor LED clears the hole in the Mechanism Chassis and that 3 Connectors (P6201, P3001 and P4001) are aligned and seated securely.

#### 5. Installation of Cassette Up Ass'y

- a. Confirm that the Locking Tab under the Cassette Up Ass'y is in Hole on the Mechanism Chassis when installing the Cassette Up Ass'y. Then, slide the Cassette Up Ass'y towards the back.
- b. When installing 2 Screws (449), slide the Holder Unit (Refer to "WHEN LOADING WITHOUT A CASSETTE" in Service Notes) to tighten screws. Then, slide it back to the **EJECT** Position.
- c. Hook Spring to the Drive Rack Arm on the Mechanism Chassis.

## 6.2. MECHANISM SECTION

### 6.2.1. Disassembly/Reassembly Method

This procedure starts with the condition that the cabinet parts and TV/VCR Main C.B.A. have been removed.  
When reassembling, perform the step(s) in the reverse order.

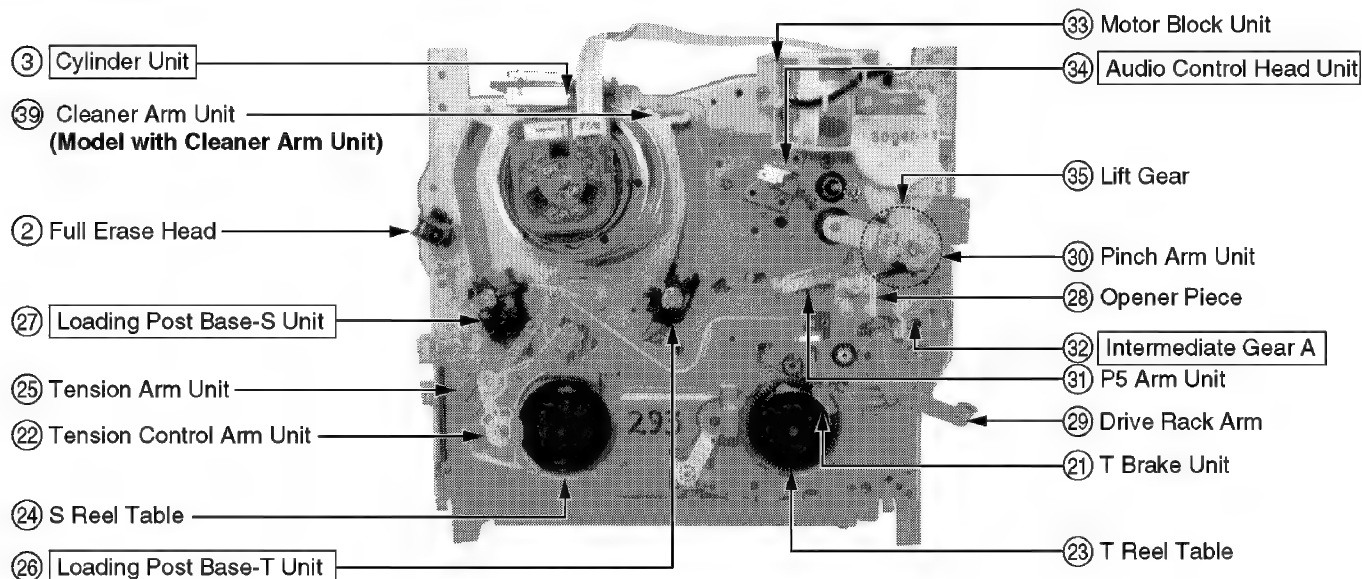
**Perform all disassembly/reassembly and alignments procedures in EJECT Position.**

| Step/Loc. No. | Prior Step(s)        | Part   | Fig. No. | Remove  | Alignment/Adjustment               |
|---------------|----------------------|--|----------|---|------------------------------------|
| ①             | -----                | Not used                                       | -        | -   |                                    |
| ②             | -----                | Full Erase Head                                | J2       | (L-1), (S-1), A/C Shield Plate                            |                                    |
| ③             | 1                    | Cylinder Unit                                  | J2       | 2(S-2), 3(S-3), Flexible Cable, Head Amp C.B.A., Unsolder | TAPE INTERCHANGEABILITY Adjustment |
| ④             | -----                | Capstan Belt                                   | J3-1     | -   |                                    |
| ⑤             | -----                | Support Angle                                  | J3-1     | (S-4), (S-5)  |                                    |
| ⑥             | 5                    | Intermediate Gear B                            | J3-1     | (L-2)   | Gear Alignment                     |
| ⑦             | 4,5,6                | Main Cam Gear                                  | J3-1     | Main Cam Push Nut   | Gear Alignment                     |
| ⑧             | 4                    | Center Clutch Unit                             | J4-1     | (W-1)   |                                    |
| ⑨             | 4,8                  | Changing Gear Spring                           | J4-1     | -   |                                    |
| ⑩             | 4,8,9                | Changing Gear                                  | J4-1     | -   |                                    |
| ⑪             | 4,8,9,10             | Idler Arm Unit                                 | J4-1     | -   |                                    |
| ⑫             | -----                | Reel Gear                                      | J5-1     | 2(L-3)  |                                    |
| ⑬             | 4,5,6,7,8,9,10       | Main Rod                                       | J5-1     | (W-2), (L-4)  | Gear Alignment                     |
| ⑭             | -----                | Not used                                       | -        | -   |                                    |
| ⑮             | 4                    | Capstan Motor Unit                             | J6       | 3(S-6)  |                                    |
| ⑯             | -----                | Not used                                       | -        | -   |                                    |
| ⑰             | -----                | Not used                                       | -        | -   |                                    |
| ⑱             | -----                | Not used                                       | -        | -   |                                    |
| ⑲             | 4,8,9,10,13          | T Loading Arm Unit                             | J7-1     | -   | Gear Alignment                     |
| ⑳             | 4,5,6,7,8,9,10,13,19 | S Loading Arm Unit                             | J7-1     | -   | Gear Alignment                     |
| ㉑             | -----                | T Brake Unit                                   | J8-1     | -   |                                    |
| ㉒             | -----                | Tension Control Arm Unit                       | J8-1     | 3(L-5)  |                                    |
| ㉓             | 21                   | T Reel Table                                   | J8-1     | -   |                                    |
| ㉔             | 22                   | S Reel Table                                   | J8-1     | -   |                                    |
| ㉕             | 22                   | Tension Arm Unit                               | J8-1     | 2(L-6), (P-1), (P-2)                                      |                                    |
| ㉖             | 22,25                | Loading Post Base-T Unit                       | J9       | -   | P2 AND P3 POST HEIGHT,             |
| ㉗             | 22,25                | Loading Post Base-S Unit                       | J9       | -   | TAPE INTERCHANGEABILITY Adjustment |
| ㉘             | -----                | Opener Piece                                   | J10-1    | 2(L-7)  |                                    |
| ㉙             | 4,5,6,7              | Drive Rack Arm                                 | J10-1    | -   |                                    |
| ㉚             | 28                   | Pinch Arm Unit                                 | J10-1    | Pinch Assist Spring                                       |                                    |
| ㉛             | 28,30                | P5 Arm Unit                                    | J10-1    | -   |                                    |
| ㉜             | 5,6,28               | Intermediate Gear A                            | J10-1    | -   | Gear Alignment                     |
| ㉝             | -----                | Motor Block Unit                               | J11      | 2(S-9)  |                                    |
| ㉞             | -----                | Audio Control Head Unit                        | J11      | (S-10)  | TAPE INTERCHANGEABILITY Adjustment |
| ㉟             | 5,6,28,30,32,33      | Lift Gear                                      | J11      | -   |                                    |
| ㊱             | -----                | Not used                                       | -        | -   |                                    |
| ㊲             | 22,25                | Tension Arm Boss                               | J11      | (L-8)   |                                    |
| ㊳             | -----                | SS Brake Arm Unit                              | J5-1     | (L-9), (P-3)  |                                    |
| ㊴             | -----                | Cleaner Arm Unit (Model with Cleaner Arm Unit) | J11      | (L-10)  |                                    |

## 6.2.2. Inner Parts Location

**Note:** BOX indicates alignment (Gear Alignment or Mechanical Adjustment) required when a part is replaced.

### TOP VIEW



### BOTTOM VIEW

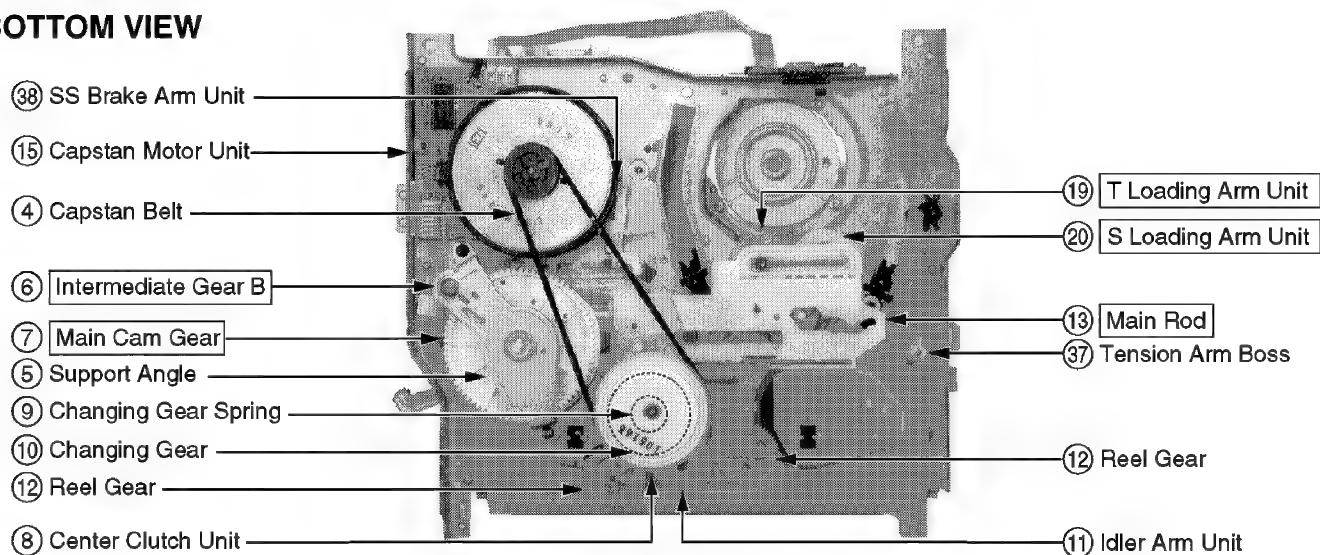


Fig. J1-1



### 6.2.3. EJECT Position Confirmation

Check the following alignment points to confirm that the Mechanism and Cassette Up Ass'y are in the **EJECT** Position from the top side.

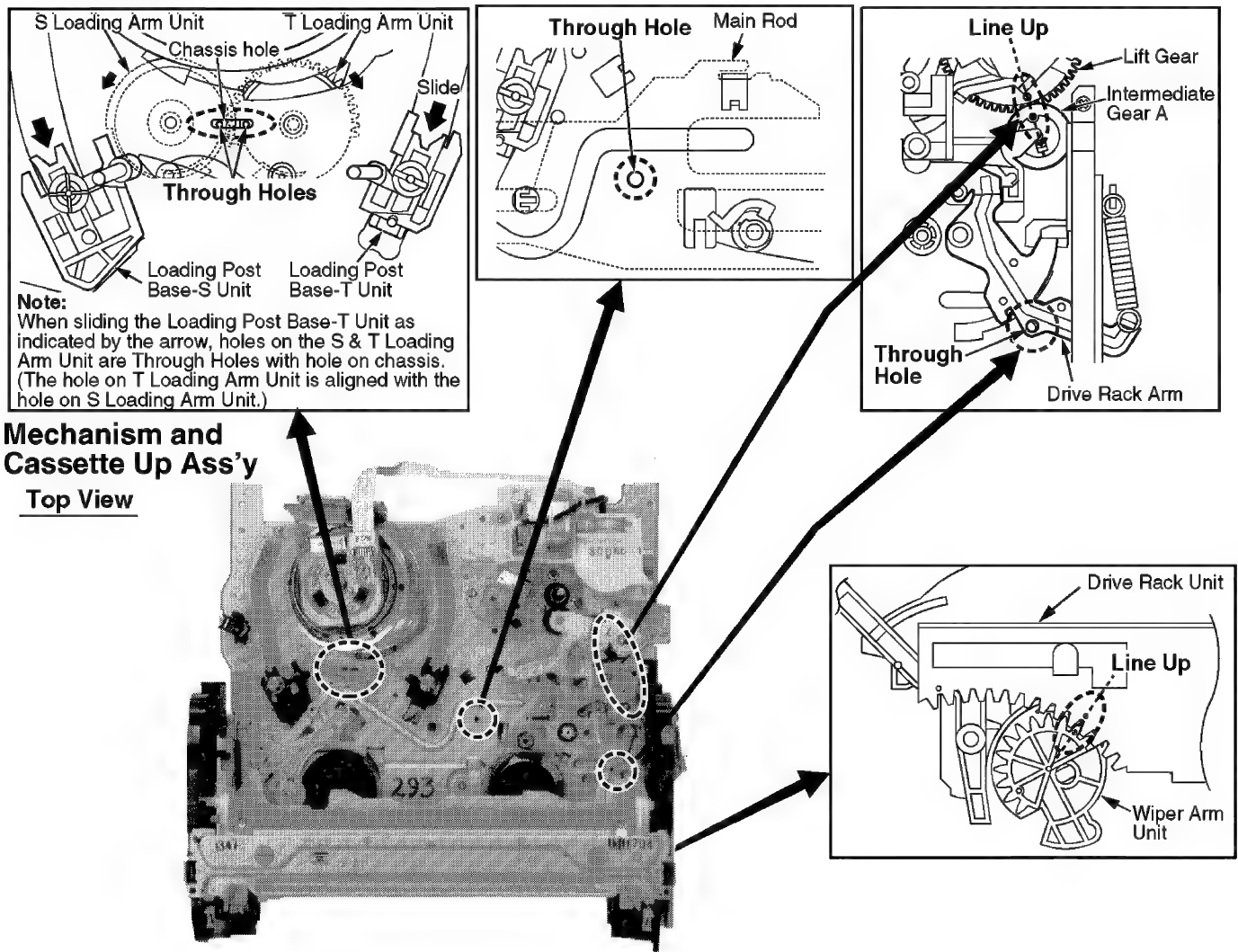


Fig. J1-2

## 6.2.4. Full Erase Head and Cylinder Unit

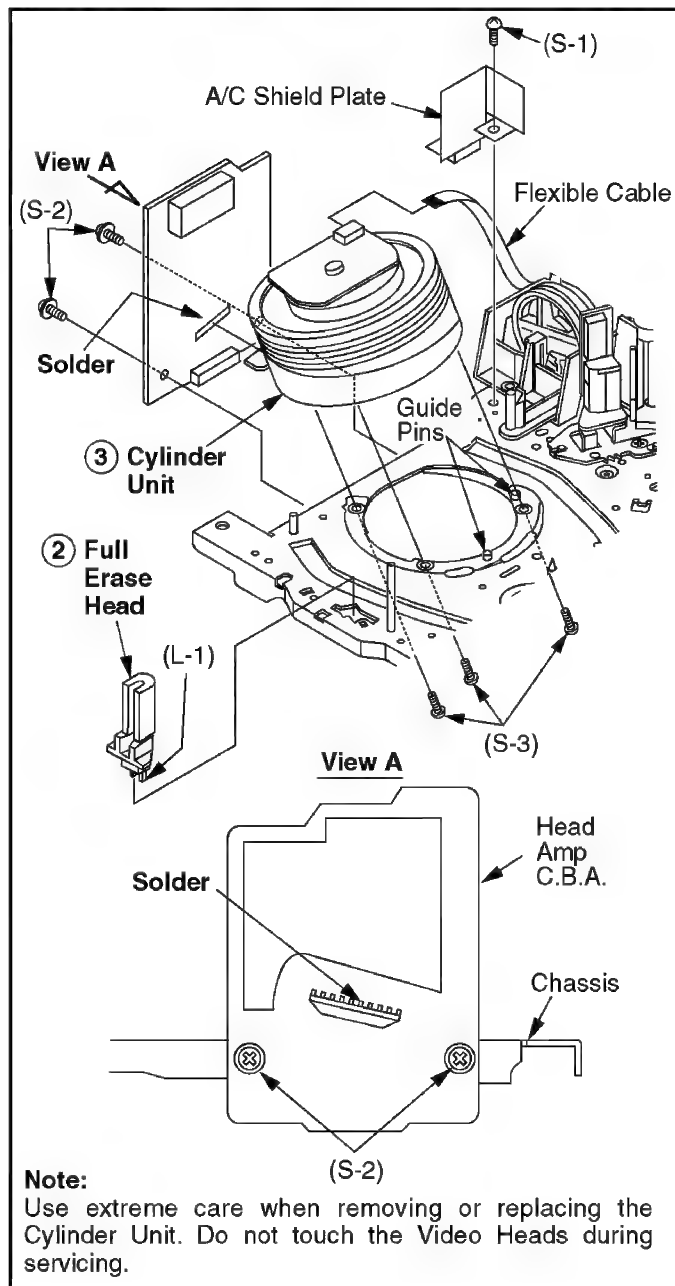


Fig. J2

### 6.2.4.1. Reassembly Notes

1. After replacing the Cylinder Unit, clear the Total elapsed "Cylinder rotation" time (in hours) to 0. Refer to "USAGE SCREEN MODE" in SERVICE NOTES.

## 6.2.5. Capstan Belt, Support Angle, Intermediate Gear B, and Main Cam Gear

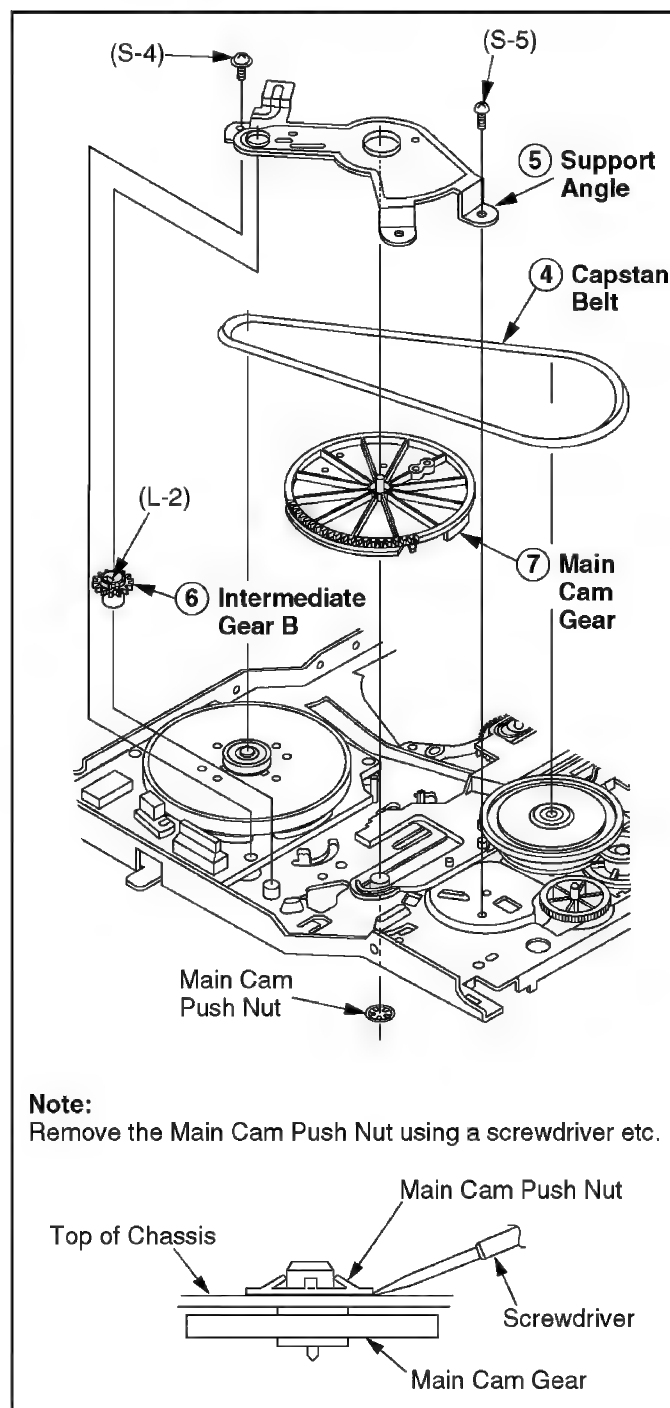


Fig. J3-1

### 6.2.5.1. Reassembly Notes

1. Alignment of Main Cam Gear, Drive Rack Arm, and Main Rod
  - a. Confirm that the hole on Main Rod is a Through Hole with a hole on chassis.
  - b. Confirm that the hole on Drive Rack Arm is a Through Hole with a hole on chassis.
  - c. Install the Main Cam Gear so that the projection of Main Cam Gear is in the upward position as shown.

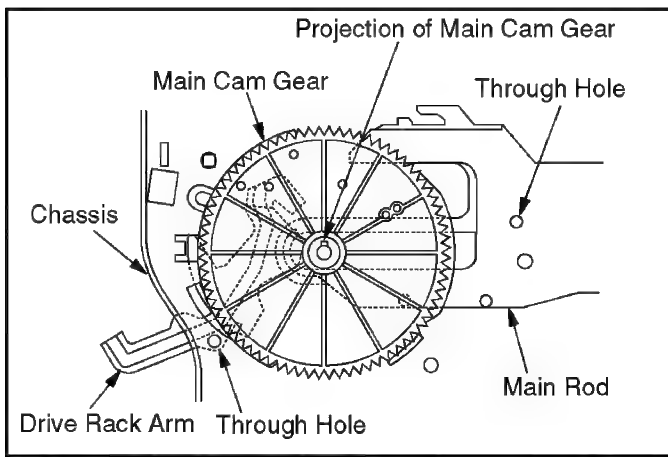


Fig. J3-2

## 2. Confirmation/Alignment of Intermediate Gear B, Main Cam Gear, and Intermediate Gear A

- Confirm that the Hole A on Lift Gear is a Through Hole with a hole on chassis.
- Confirm that the hole on Intermediate Gear A is aligned with the hole on Lift Gear.

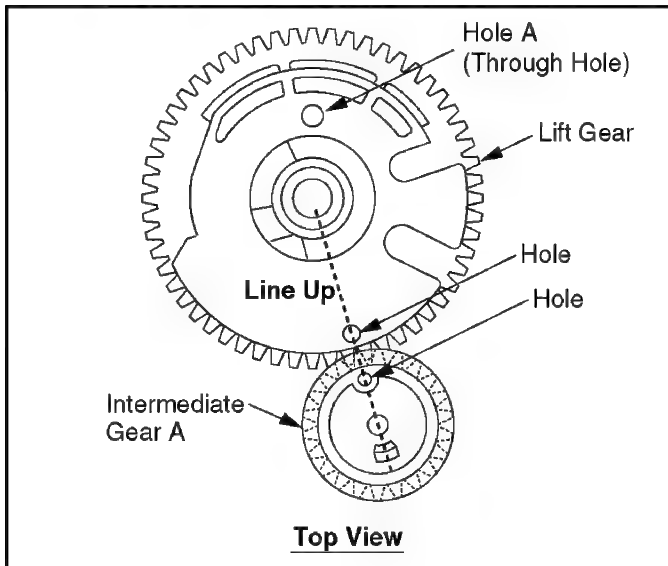


Fig. J3-3

- Install the Intermediate Gear B so that the hole on the Intermediate Gear B is aligned with the hole on the Main Cam Gear.

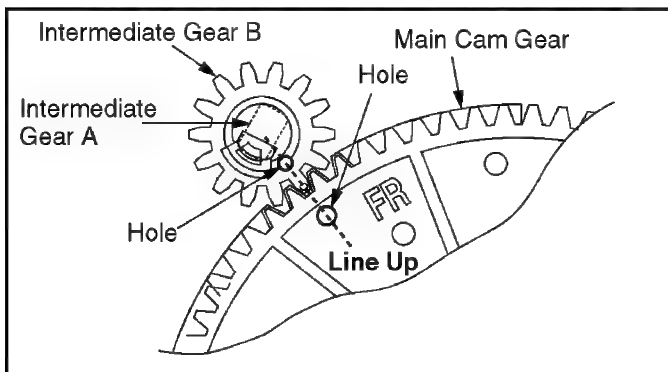


Fig. J3-4

## 3. Holes on Main Cam Gear

- The EJECT mode Hole on Main Cam Gear should be a Through Hole with Hole A on Support Angle in EJECT mode. The each mode Hole on Main Cam Gear should be a Through Hole with Hole B on Support Angle in each mode.

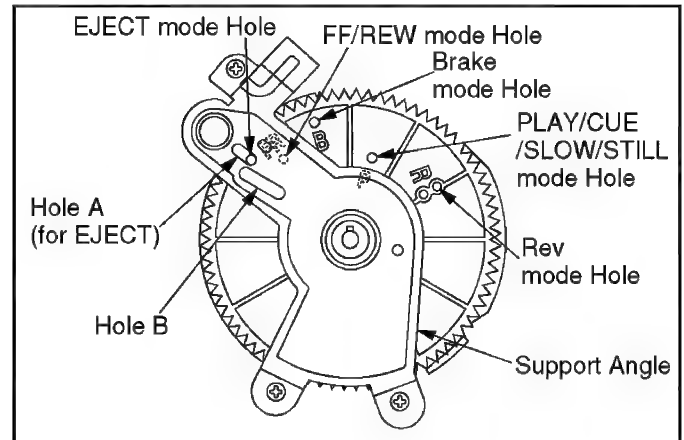


Fig. J3-5

## 4. Main Cam Gear Kit

- Main Cam Gear is supplied as a Main Cam Gear Kit only.

Main Cam Gear Kit consists of a Main Cam Gear and a Main Cam Push Nut.

However, Main Cam Push Nut is available separately as a replacement part.

## 5. Installation of Main Cam Gear and Main Cam Push Nut

- After installing the Support Angle, install the Main Cam Push Nut with Needlenose Pliers etc. so that it is flush with the chassis.

There may be some slight scratches on the Shaft of Main Cam Gear, when removing the Main Cam Gear. In case that the Main Cam Gear can be installed securely without tottering, it is fine to use the one. If any tottering, install all new parts.

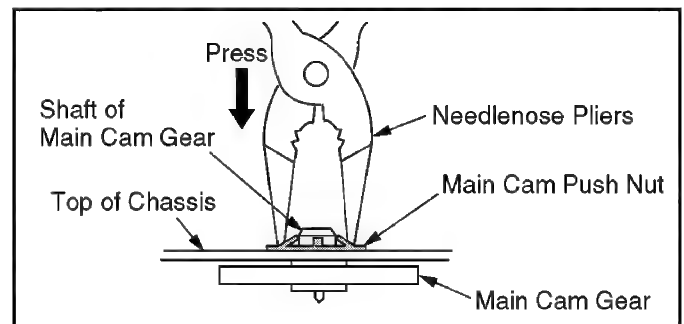


Fig. J3-6

- The Main Cam Push Nut is not reusable. Install a new one.

### 6.2.6. Center Clutch Unit, Changing Gear Spring, Changing Gear, and Idler Arm Unit

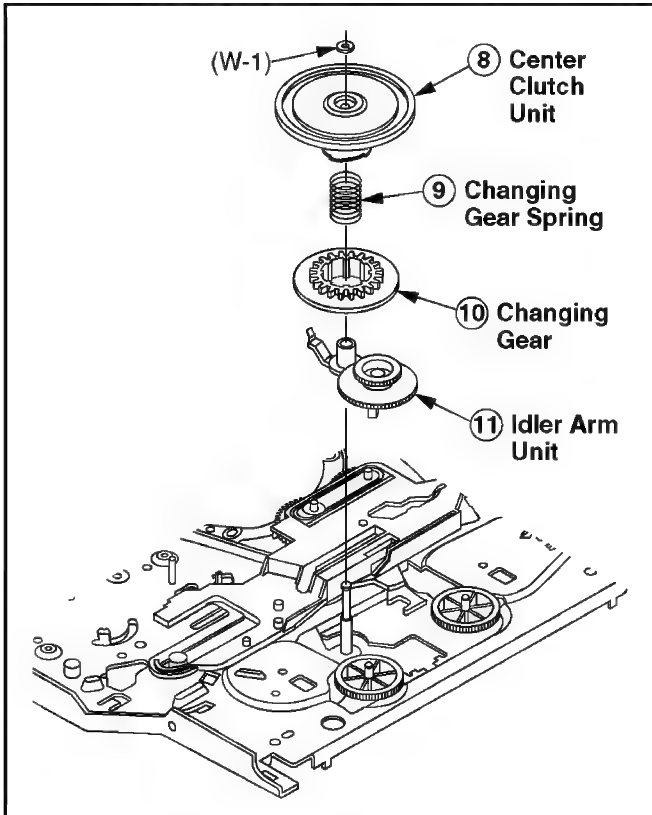


Fig. J4-1

#### 6.2.6.1. Reassembly Notes

##### 1. Installation of Center Clutch Unit

- a. Fit the Center Clutch Unit into the Changing Gear.

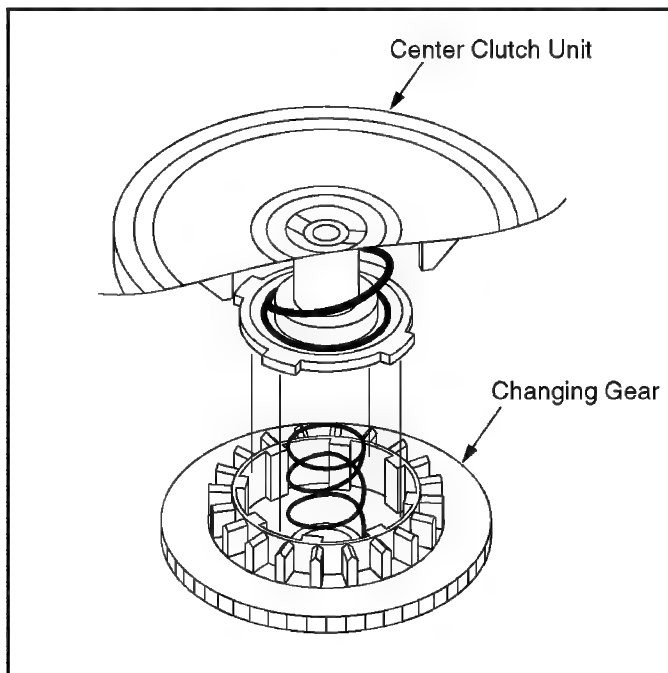


Fig. J4-2

### 6.2.7. Reel Gear, Main Rod, and SS Brake Arm Unit

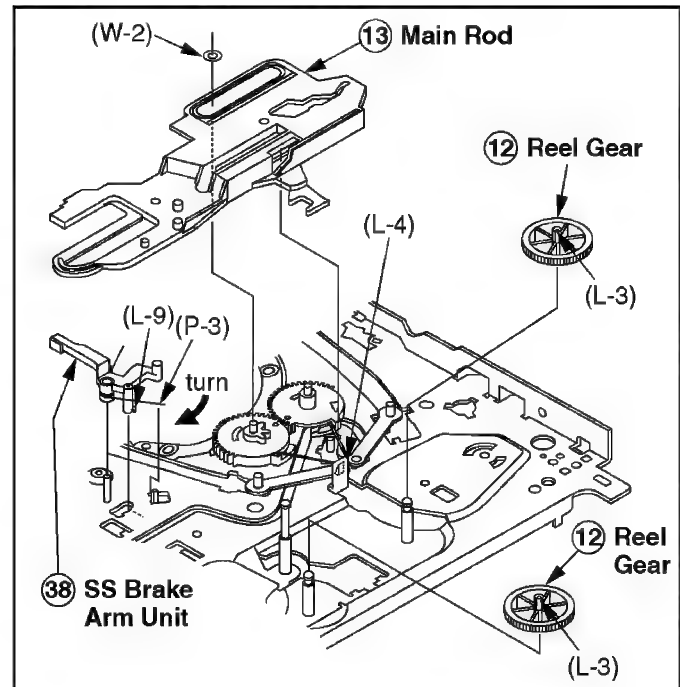


Fig. J5-1

#### 6.2.7.1. Reassembly Notes

##### 1. Alignment of Main Rod and T Loading Arm Unit

- a. Align the Gear of T Loading Arm Unit with Gear of Main Rod. Confirm that the Hole on Main Rod is a Through Hole with a hole on chassis.

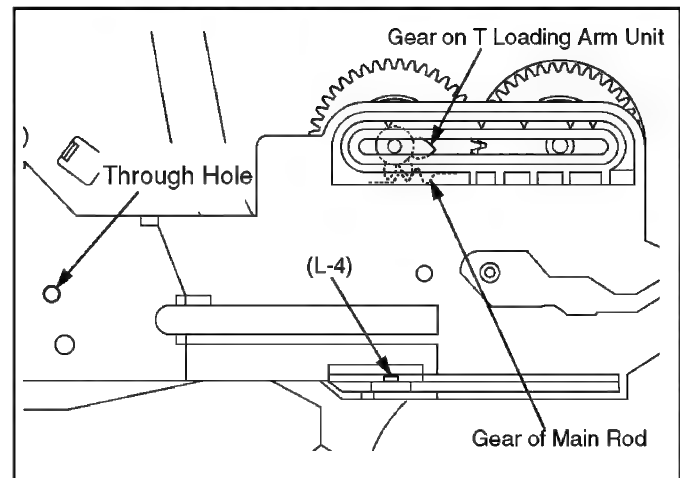


Fig. J5-2

### 6.2.8. Capstan Motor Unit

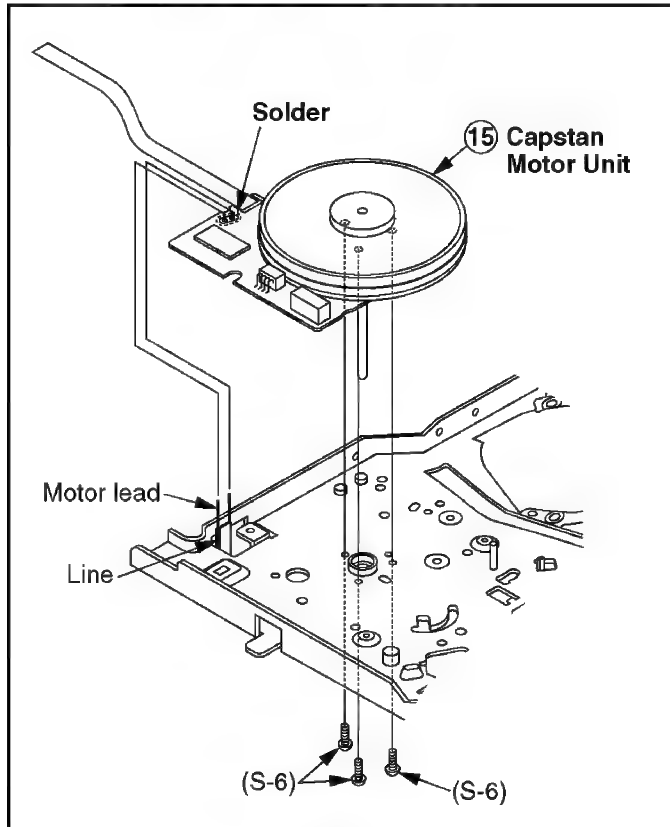


Fig. J6

### 6.2.9. T Loading Arm Unit and S Loading Arm Unit

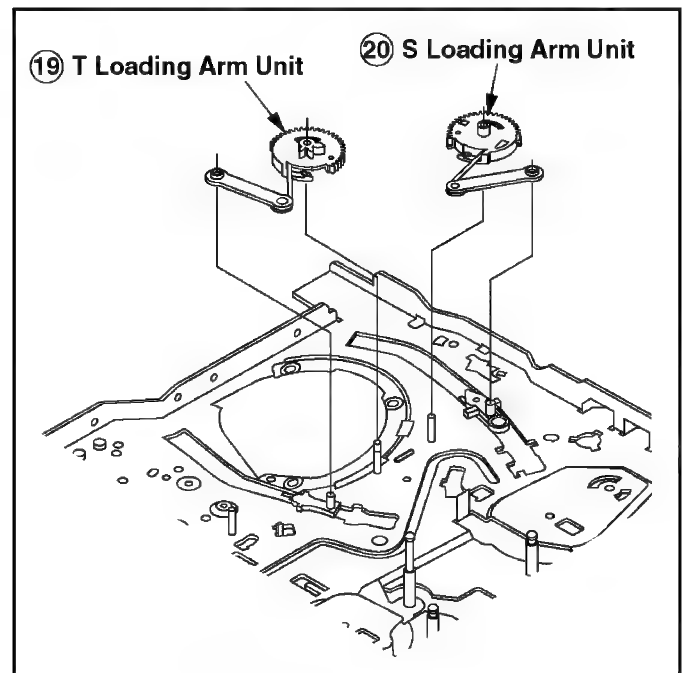


Fig. J7-1

#### 6.2.9.1. Reassembly Notes

##### 1. Alignment of T Loading Arm Unit and S Loading Arm Unit

- Install the S Loading Arm Unit onto the chassis.
- Install the T Loading Arm Unit so that the hole on T Loading Arm Unit is aligned with the hole on S Loading Arm Unit.
- Confirm that the holes on the S & T Loading Arm Unit are Through Holes with hole on chassis.

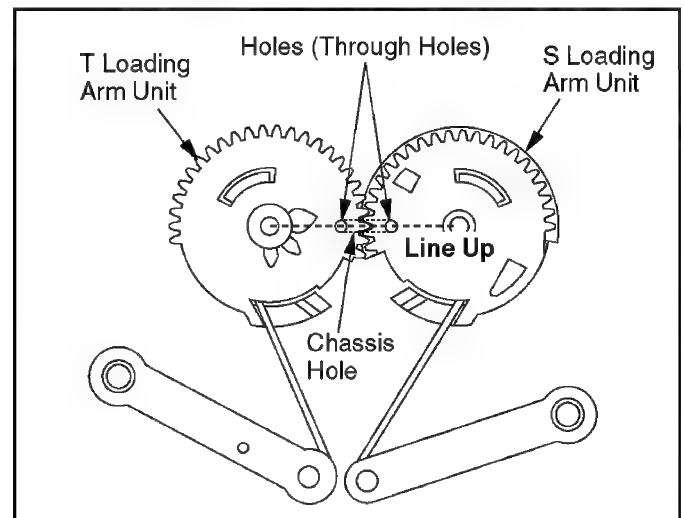


Fig. J7-2

### 6.2.10. T Brake Unit, Tension Control Arm Unit, T Reel Table, S Reel Table, and Tension Arm Unit

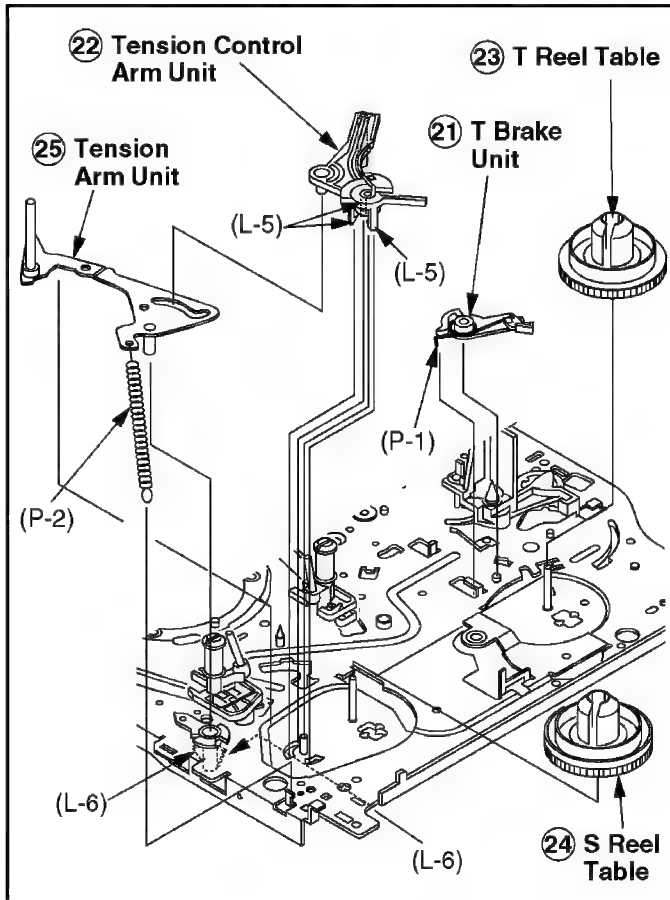


Fig. J8-1

#### 6.2.10.1. Reassembly Notes

##### 1. How to distinguish between S Reel Table and T Reel Table

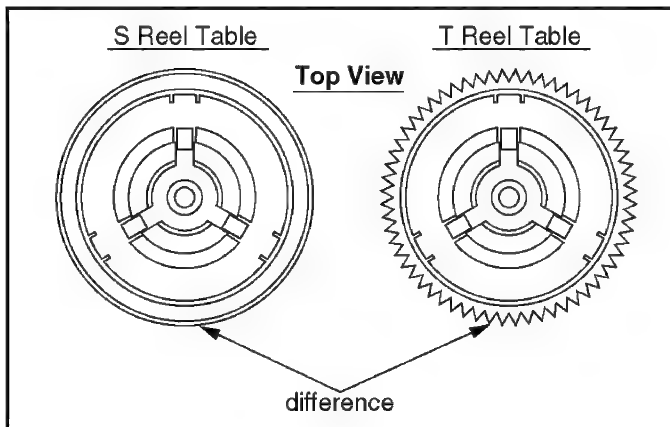


Fig. J8-2

### 6.2.11. Loading Post Base -T Unit and Loading Post Base -S Unit

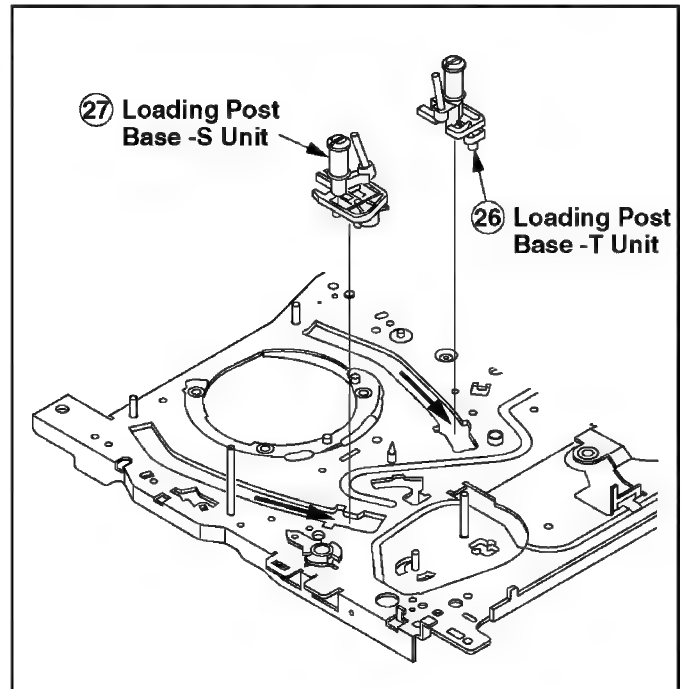


Fig. J9



## 6.2.12. Opener Piece, Drive Rack Arm, Pinch Arm Unit, P5 Arm Unit, and Intermediate Gear A

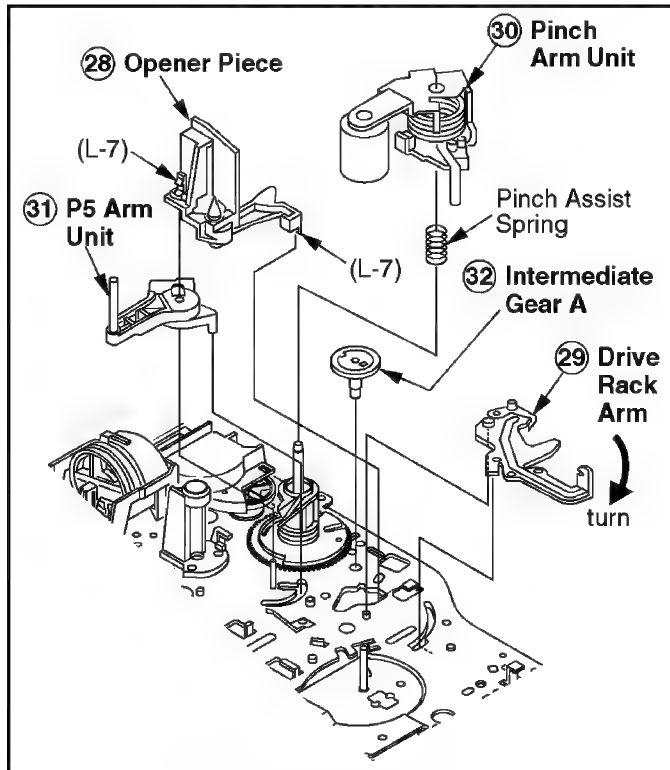


Fig. J10-1

Piece is inserted to the Pin of Pinch Arm Unit

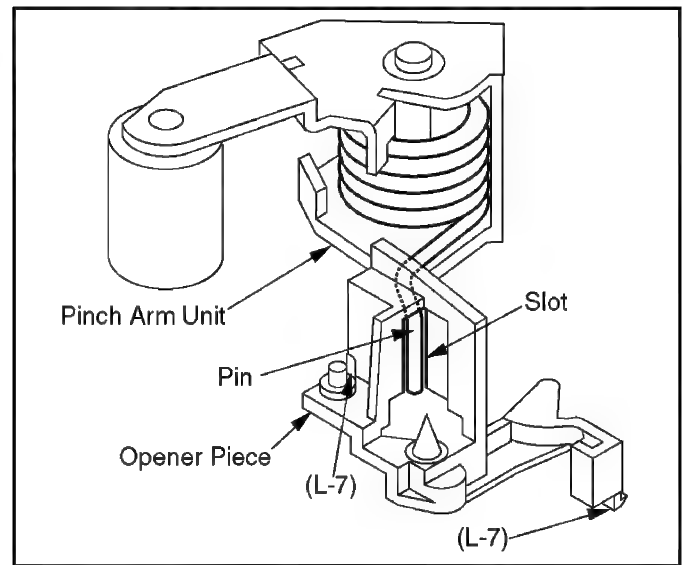


Fig. J10-3

### 6.2.12.1. Reassembly Notes

#### 1. Installation/Alignment of Intermediate Gear A, Lift Gear and P5 Arm Unit

- Rotate the Lift Gear so that Hole A on Lift Gear is a Through Hole with a hole on chassis.
- Install the Intermediate Gear A so that the hole on Intermediate Gear A is aligned with the hole on Lift Gear.
- Install the P5 Arm Unit so that it contacts with the tab of chassis.

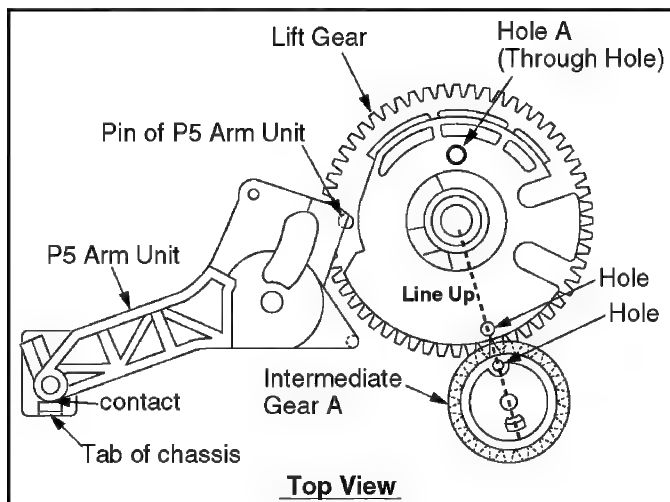


Fig. J10-2

#### 2. Installation of Opener Piece

- Install the Opener Piece so that the slot of the Opener

### 6.2.13. Motor Block Unit, Audio Control Head Unit, Lift Gear, Tension Arm Boss, and Cleaner Arm Unit

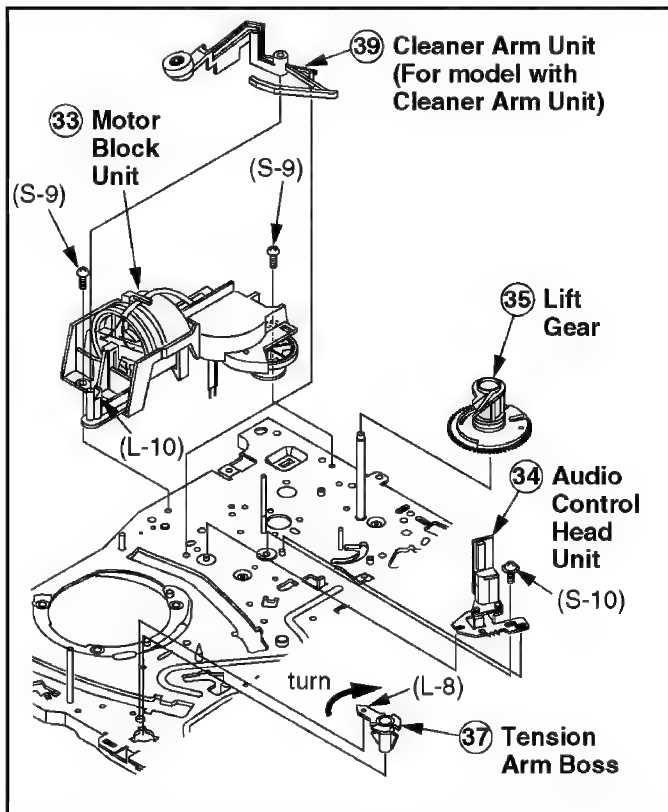


Fig. J11

### 6.3. CASSETTE UP ASSEMBLY SECTION

This chart indicates Step/Location No. of Parts to be serviced and prior steps to gain access items to be serviced when disassembling. When reassembling, perform the step(s) in the reverse order.

| Step/Loc. No. | Prior Step(s) | Part            | Fig. No. | Remove       | Alignment/Adjustment |
|---------------|---------------|-----------------|----------|--------------|----------------------|
| ①             | -----         | Top Plate       | K1-1     | (L-1), (L-2) |                      |
| ②             | 1             | Wiper Arm Unit  | K1-1     | 2(L-3)       | Gear Alignment       |
| ③             | 1,2           | Holder Unit     | K1-1     | -            |                      |
| ④             | -----         | Opener Lever    | K2       | 2(L-4)       |                      |
| ⑤             | 1,2,3,4       | Drive Rack Unit | K2       | -            |                      |

#### 6.3.1. Top Plate, Wiper Arm Unit, and Holder Unit

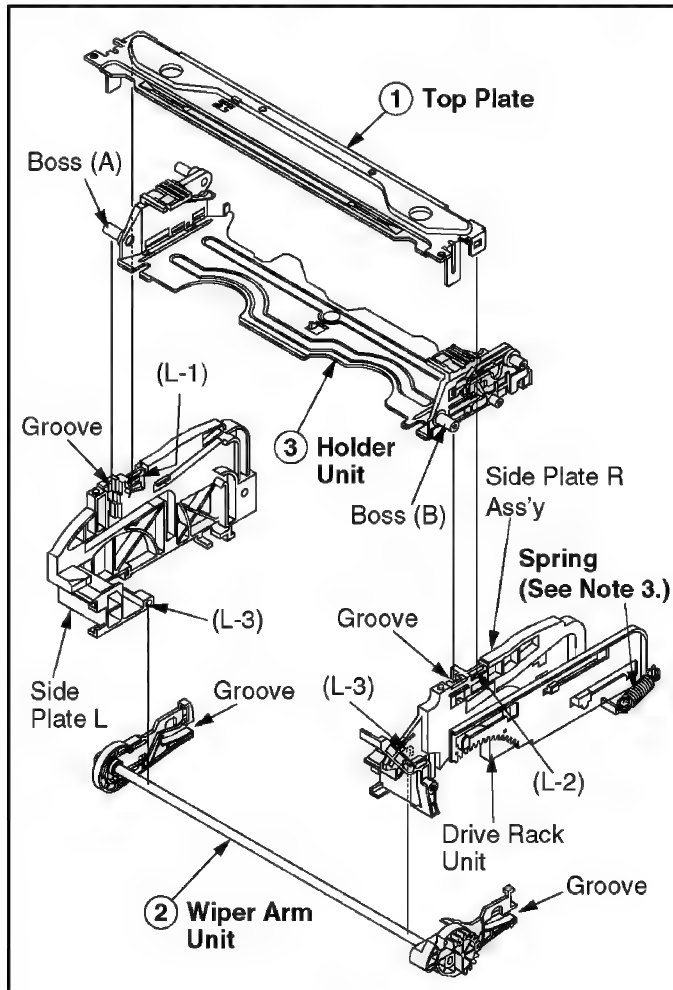


Fig. K1-1

### 6.3.1.1. Reassembly Notes

#### 1. Alignment of Wiper Arm Unit and Drive Rack Unit

- Slide the Drive Rack Unit to the far right as indicated by the arrow.
- Install the Wiper Arm Unit so that the hole on the Wiper Arm Unit is aligned with the hole on the Drive Rack Unit.

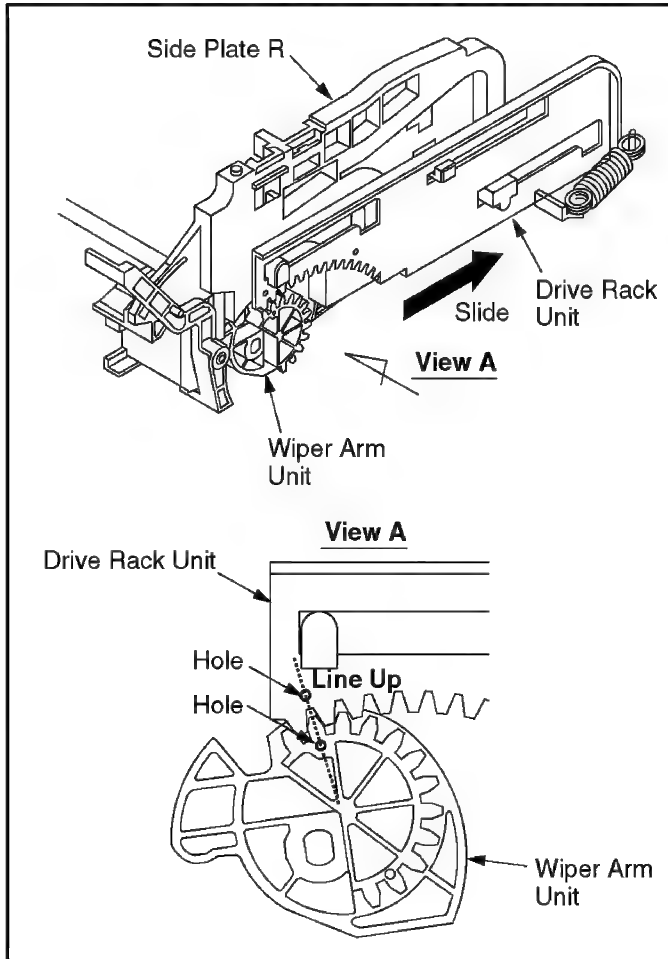


Fig. K1-2

#### 2. Installation of Holder Unit

- Turn the Wiper Arm Unit so that the grooves on each end are aligned with the each groove on Side Plate L and R.
- Insert Holder Unit boss (A) and (B) into the grooves as shown in Fig. K1-1.
- Finally, in the **EJECT** Position, confirm that the protrudence on the Wiper Arm Unit is aligned with the indentation on the Drive Rack Unit.

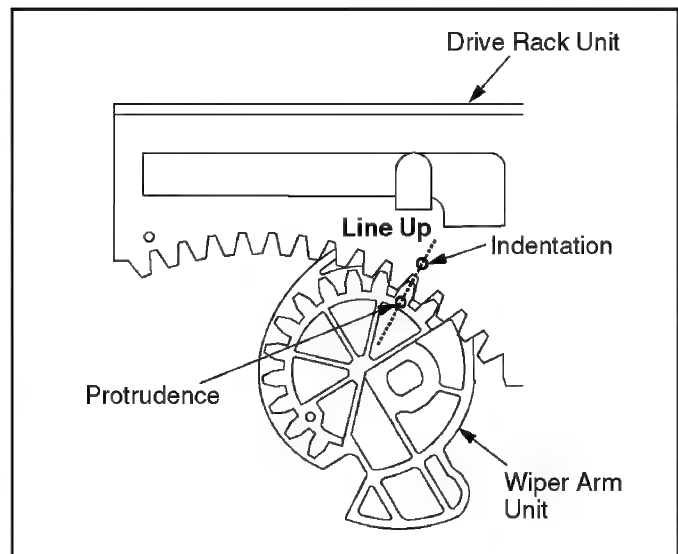


Fig. K1-3

- Make sure to hook the spring to the Drive Rack Arm of Mechanism chassis.

### 6.3.2. Opener Lever and Drive Rack Unit

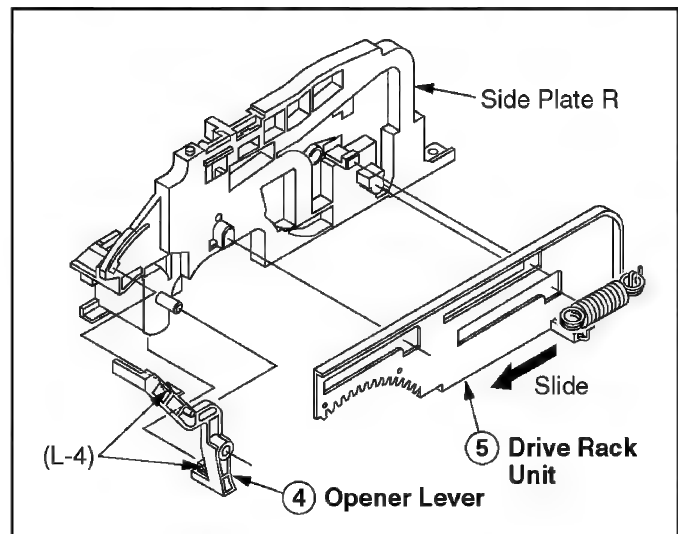
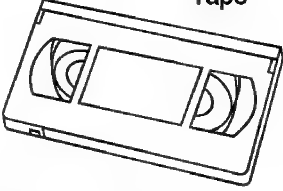
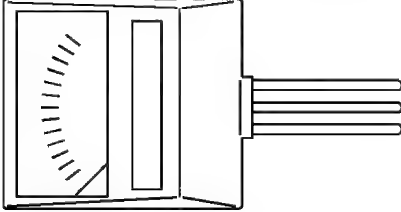
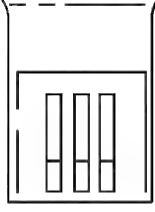
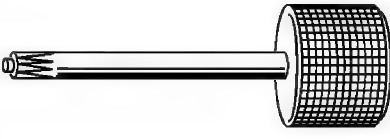




Fig. K2

## 7 ADJUSTMENT PROCEDURES

### 7.1. SERVICE FIXTURES AND TOOLS

|   |  |  |
|---|--|--|
| <p><b>VFMS0003H6</b>      <b>VHS Alignment Tape</b></p>  <div data-bbox="175 583 570 640"> <div>Video<br/>Audio</div> <div>Color Bar &amp; Monoscope<br/>6kHz(MONO)</div> </div> | <p><b>Back Tension Meter</b><br/>(Made in USA., Purchase Locally)</p>  | <p><b>VFK27</b>      <b>Head Cleaning Stick</b></p>       |
| <p><b>VFK0330</b>      <b>H-Position Adjustment Driver</b></p>   | <p><b>VFKS0081</b>      <b>Grease</b></p>                               | <p><b>VFK0329</b>      <b>Post Adjustment Driver</b></p>  |

## 7.2. MECHANICAL ADJUSTMENT

### 7.2.1. CLEANING PROCEDURE FOR THE UPPER CYLINDER UNIT

1. While slowly turning the Upper Cylinder Unit counterclockwise by hand, gently rub the Video Heads with a Head Cleaning Stick (VFK27) moistened with Ethanol.

When using a Cleaning Cassette, make sure to use "DRY" type only and be aware that excessive use can shorten head life.

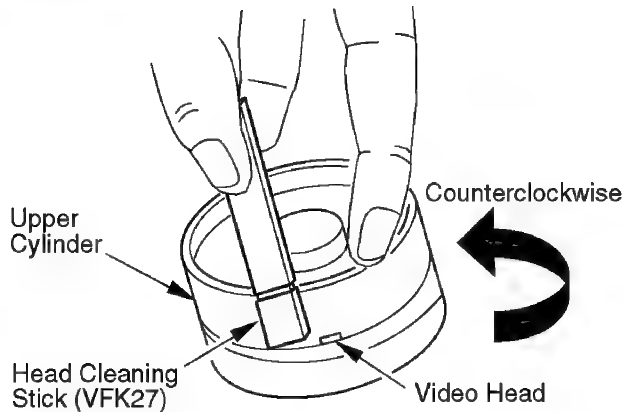


Fig. M1

#### Note:

1. Do not rub vertically or apply excess pressure to the Video Heads.  
Do not turn the Upper Cylinder Unit clockwise while cleaning.
2. After cleaning, use a Dry Head Cleaning Stick (VFK27) to remove any Ethanol remaining on the cylinder tape path. Otherwise, tape damage will occur.

### 7.2.2. ADJUSTMENT PROCEDURES

#### 7.2.2.1. BACK TENSION CONFIRMATION

**Purpose:** To fine adjust the Back Tension so that the tape runs smoothly with a constant tension.

**Symptom of Misadjustment:**

- 1) If the tape tension is less than the specified value, the tape cannot come into proper contact with the Video Heads, resulting in poor picture playback.
- 2) If the tape tension is too high, the tape will soon be damaged.

**Equipment Required:** Back Tension Meter (Made in U.S.A., Purchase Locally)  
VHS Cassette Tape (120-Minute Tape)

**Specification:** 22.4 gf $\pm$ 2.5 gf  
(0.220 N $\pm$ 0.025 N)

1. Play back a T120 cassette tape from the beginning for approx. 10 to 20 seconds to stabilize tape movement.
2. Insert a Tension Meter into tape path and measure the back tension.

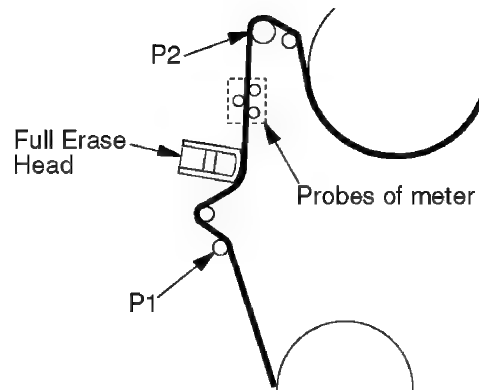


Fig. M2-1

3. If the reading is out of specification, make sure that there is no dust or foreign material between the Brake Pad of Tension Control Arm Unit and the S Reel Table.

After cleaning, the reading of tension measurement is still out of specification, replace the Tension Arm Unit and the Tension Control Arm Unit.

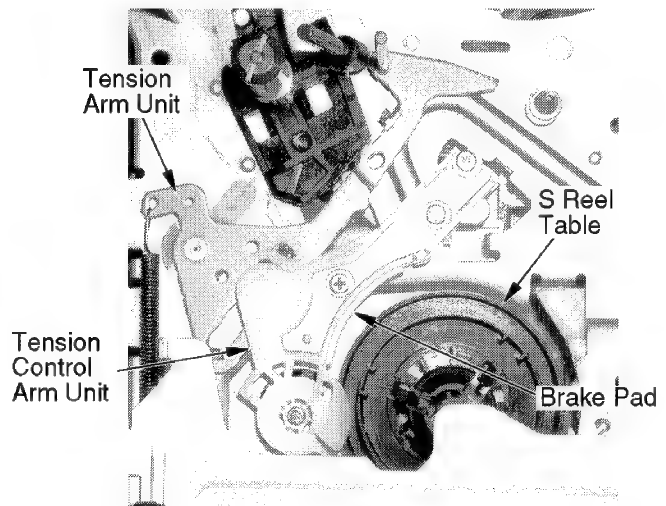


Fig. M2-2

#### Note:

1. Be sure that the three probes of the meter are all in solid contact with the tape, but not touching any other parts of the mechanism.
2. It is recommended that measurements should be repeated at least three (3) times because the tension meter is very sensitive to external vibrations.

## 7.2.2.2. TAPE INTERCHANGEABILITY ADJUSTMENT

### Note:

To perform these adjustment/confirmation procedures, set the tracking to the neutral position.

Equipment Required: Dual Trace Oscilloscope  
VHS Alignment Tape (VFMS0003H6)  
Post Adjustment Driver (VFK0329)  
H-Position Adjustment Driver (VFK0330)

### 7.2.2.2.1. ENVELOPE OUTPUT ADJUSTMENT

The height of the P2 and P3 Posts replacement part is preadjust at the factory.

Purpose: To achieve a satisfactory picture and secure precise tracking.

Symptom of Misadjustment: If the envelope is output poorly, much noise will appear in the picture. Then the tracking will lose precision and the playback picture will be distorted by any slight variation of the tracking control circuit.

Equipment Required: Post Adjustment Driver (VFK0329)

1. Place a jumper between TP6003 and +5 V(TP6009) on the TV/VCR Main C.B.A. to defeat Auto Tracking.
2. Eject the tape and insert it again to access the Neutral Tracking position.
3. Play back the alignment tape.
4. Connect the oscilloscope to TP3002 on the Video Signal Process Section of the TV/VCR Main C.B.A. Use TP6205 as a trigger.
5. Confirm that the RF envelope is flat enough ( $V1/V\text{-max.}$  is 0.7 or more). If not, with Post Adjustment Driver, adjust P2 and P3 post height so that the envelope waveform becomes as flat ( $V1/V\text{-max.}$  is 0.7 or more) as possible (No envelope drop). If the envelope drop appears on the left-half of the waveform, adjust P2 post height. If the envelope drop appears on the right-half of the waveform, adjust P3 post height.

### CAUTION:

Overtightening P2 and P3 posts may cause the threads to strip.

### Note:

It will be possible to confirm Step 5 according to following steps.

- a. Press the Tracking Control Up or Down button on remote control. Make sure that the envelope waveform remains flat. If not, readjust P2 and/or P3 post heights.

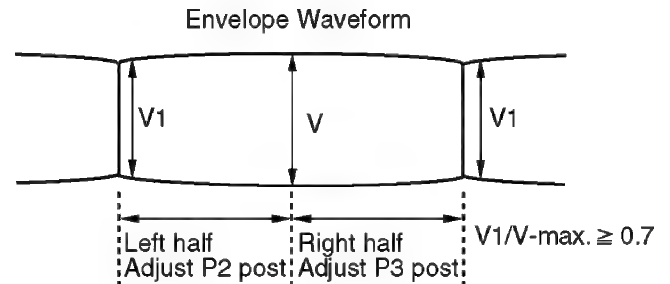


Fig. M3-1

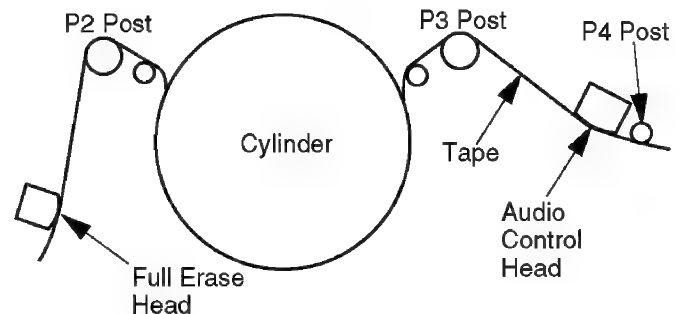


Fig. M3-2

6. After adjustment, confirm that the tape travels without curling at P2 and P3 posts.

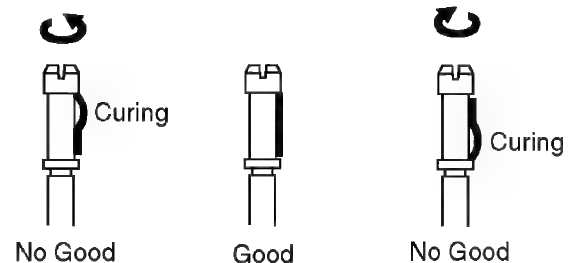


Fig. M3-3

7. Remove the jumper after completing the adjustment procedure.

### 7.2.2.2.2. AUDIO CONTROL HEAD TILT ADJUSTMENT

**Purpose:** To confirm that the tape runs smoothly. In particular, confirm that the tape properly picks up the Audio Signal at the upper part of the head and the Control Signal at the lower part of the head.

**Symptom of Misadjustment:** If the tilt of the Audio Control Head is poorly adjusted, the tape will eventually be damaged. An intermittent Blue screen may be seen in Playback.

1. Play back a T120 cassette tape and check that the tape travels smoothly between the upper and lower guides of the P4 post.
2. If necessary, adjust Black Screw (B) clockwise until the tape begins to curl at the lower edge of the P4 post. Then adjust the screw counterclockwise until the curling is eliminated.

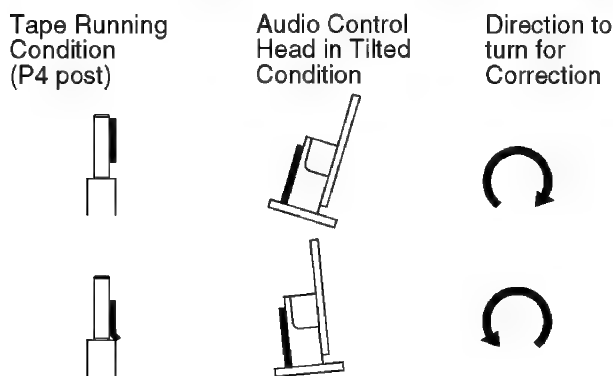


Fig. M4

### 7.2.2.2.3. AUDIO CONTROL HEAD HEIGHT ADJUSTMENT

The height of the Audio Control Head replacement part is preset at the factory.

**Purpose:** To be sure the tape runs properly along the Control Head.

**Symptom of Misadjustment:** If the control signal is not properly picked up, Servo Operation cannot be achieved. A Blue screen will be seen in Playback.

This confirmation is required when the Audio Control Head is replaced.

1. Play back a T120 cassette tape and check that the lower edge of the tape runs approximately 0.25 mm above the lower edge of the Audio Control Head.
2. If necessary, adjust Black Screws (A) and (B) clockwise to lower the tape or counterclockwise to raise.

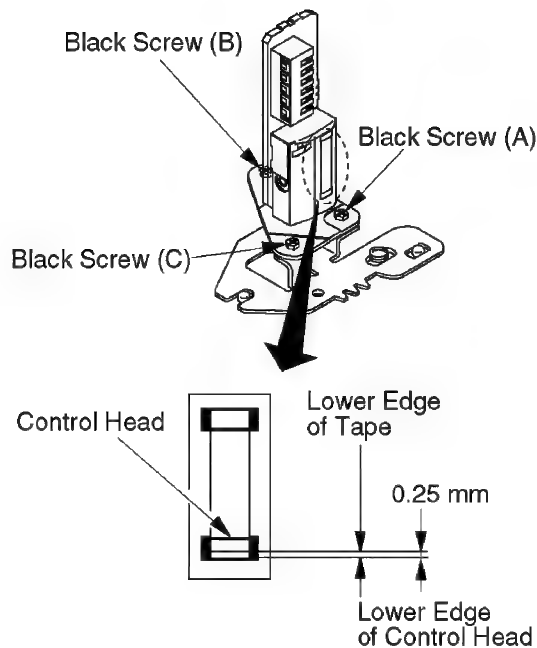


Fig. M5

### 7.2.2.2.4. AUDIO CONTROL HEAD AZIMUTH ADJUSTMENT

**Purpose:** To adjust the position and height of the Audio Control Head so that it meets the tape tracks properly.

**Symptom of Misadjustment:** If the position of the Audio Control Head is not properly adjusted, the Audio S/N Ratio is poor.

1. Connect the oscilloscope to the TP4002 on the TV/VCR Main C.B.A.
2. Play back the 6 kHz Monaural Audio portion of the alignment tape.
3. Adjust Black Screw (C) on the Audio Control Head base so that the output level is at maximum.

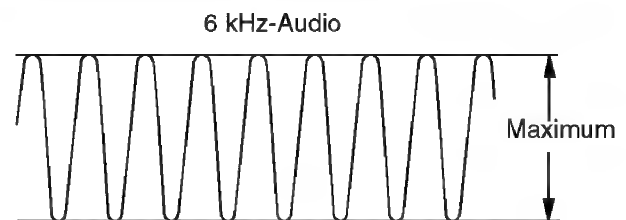


Fig. M6

4. Confirm the height of the Audio Control Head is proper. If not, readjust Black Screws (A) and (B).



### 7.2.2.2.5. AUDIO CONTROL HEAD HORIZONTAL POSITION ADJUSTMENT

|                           |   |
|---------------------------|---|
| Purpose:                  | To adjust the Horizontal Position of the Audio Control Head.  |
| Symptom of Misadjustment: | If the Horizontal Position of the Audio Control Head is not properly adjusted, a maximum envelope cannot be obtained at the Neutral Position of the Tracking Control Circuit. |

1. Place a jumper between TP6003 and +5 V(TP6009) on the TV/VCR Main C.B.A. to defeat Auto Tracking.
2. Eject the tape and insert it again to access the Neutral Tracking position.
3. Play back the alignment tape.
4. Connect the oscilloscope to TP3002 on the Video Signal Process Section of the TV/VCR Main C.B.A. Use TP6205 as a trigger.
5. Loosen the Black Screw (D) and tighten it slightly. Set the H-Position Adjustment Driver into the Hole (A). Then slowly turn the fixture either clockwise or counterclockwise so that the envelope is at maximum.

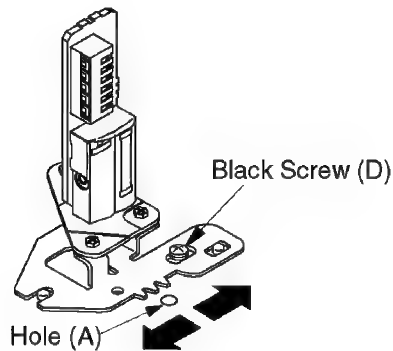


Fig. M7

6. Tighten Black Screw (D).
7. Remove the jumper between TP6003 and +5 V(TP6009).

**Note:**

Old type of H-Position Adjustment Driver (VFK0136) can be used for this adjustment.

## 7.3. ELECTRICAL ADJUSTMENT

### 7.3.1. TEST EQUIPMENT

To do all of these electrical adjustments, the following equipment is required.

1. Dual-Trace Oscilloscope
  - Voltage Range: 0.001 V to 50 V/Div.
  - Frequency Range: DC to 50 MHz
  - Probes: 10:1, 1:1
2. NTSC Video Pattern Generator
3. DVM (Digital Volt Meter)
4. MTS/SAP Signal Generator
  - (TV Multi-Channel Sound Modulator (U.S.A.))
5. Frequency Counter
  - Frequency Range: 0 to 150 MHz
6. Plastic Tip Driver and Non-Metal Driver
7. Isolation Transformer (Variable)
8. VHS Alignment Tape (VFMS0003H6)
9. Degaussing Coil
10. White Pattern Generator
11. Audio Generator

### 7.3.2. HOW TO READ THE ADJUSTMENT PROCEDURES

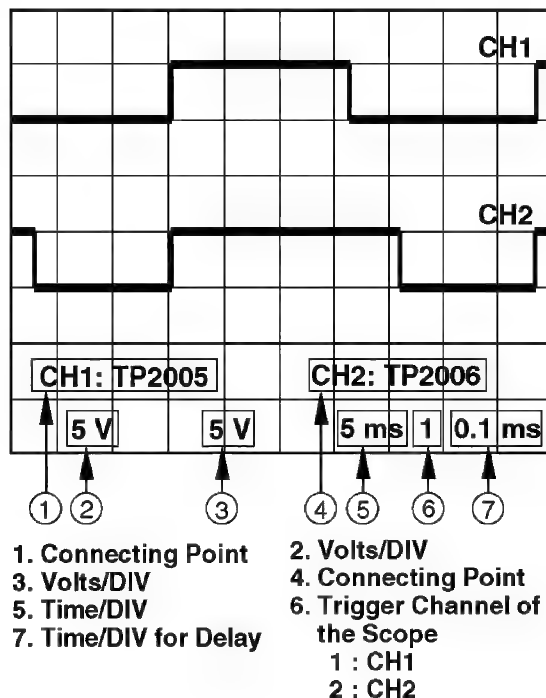


Fig.E1

### 7.3.3. FM VCO ADJUSTMENT (FOR MODEL WITH FM RADIO AND TV STEREO)

**Purpose:** To set VCO free run frequency.  
**Symptom of Misadjustment:** Even when stereophony is received, only monaural sound will be output.  
**Test Point :** C9203(-), TP9201 (TV/VCR Main C.B.A.)  
**Adjustment :** R9206 (TV/VCR Main C.B.A.)  
**Specification :** 38.0 kHz $\pm$ 50 Hz  
**INPUT :** -----  
**Mode :** STEREO audio (FM Radio)  
**Equipment :** Frequency Counter

1. Connect C9203(-) on the TV/VCR Main C.B.A. to GND.

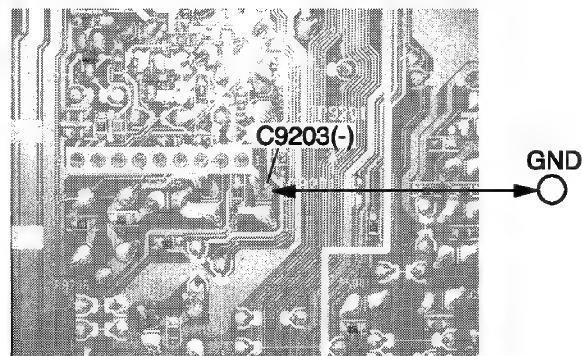


Fig. E3-1

2. Connect TP9201 on the TV/VCR Main C.B.A. to GND through a resistor (3.3 k $\Omega$ ). Then, connect Frequency Counter to TP9201.

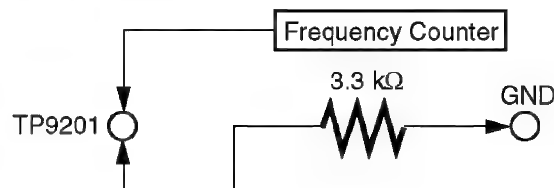


Fig. E3-2

3. Adjust R9206 (FM VCO) so that the frequency is 38.0 kHz $\pm$  50 Hz.

### 7.3.4. EVR (Electronic Variable Register) ADJUSTMENT WITH THE REMOTE CONTROL

This unit has electronic technology using I2C Bus concept. The following control functions are adjusted by using "On Screen Displays" and the remote control instead of adjusting mechanical controls (VR).

**Memory IC Reference Table**

| Control functions | ※1<br>Address | Range            | Default |
|-------------------|---------------|------------------|---------|
| SUB COLOR         | 00            | C0 - FF, 00 - 3F | 00      |
| SUB TINT          | 01            | E0 - FF, 00 - 1F | 00      |
| SUB BRIGHT        | 02            | C0 - FF, 00 - 3F | DE      |
| CONTRAST          | 03            | C1 - FF, 00      | 00      |
| SUB SHARPNESS     | 04            | E0 - FF, 00 - 1F | F0      |
| R CUT -OFF        | 05            | 00 - 7F          | 1E      |
| G CUT -OFF        | 06            | 00 - FD          | 3C      |
| B CUT -OFF        | 07            | 00 - FD          | 3C      |
| G DRIVE           | 08            | 00 - 7F          | 40      |
| B DRIVE           | 09            | 00 - 7F          | 40      |
| SUB CONTRAST      | 0A            | 00 - 0F          | 06      |
| H-CENTER          | 0B            | 00 - 0F          | 08      |
| V SIZE            | 0D            | 00 - 7F          | 40      |
| V POSITION ※2     | 0E            | 00 - 1F          | 03      |
| ANR               | 10            | 00 - FD          | 89      |
| PIC               | 11            | 00 - FD          | 86      |
| VV COLOR          | 12            | 00 - FF          | 00      |
| VV TINT           | 13            | 00 - FF          | 00      |
| VV SHARPNESS      | 14            | 00 - FF          | F8      |
| PG SHIFTER        | 15            | 01 - FD          | 80      |
| FM ANT ※3         | 18            | 00 - 01          | 00/01   |

**Note:**

- ※1. Address is not displayed on the TV screen.  
Other Addresses except above are not used.
- ※2. For Model with 20 inch CRT, V POSITION are not required in EVR adjustment.

#### 7.3.4.1. EVR ADJUSTMENT ITEM

The following Items need to be adjusted for EVR adjustment.

- PG SHIFTER ADJUSTMENT
- SUB CONTRAST ADJUSTMENT
- FOCUS, SCREEN, CUT OFF, DRIVE ADJUSTMENT
- SUB COLOR/SUB TINT ADJUSTMENT
- V. HEIGHT/H. POSITION ADJUSTMENT
- WHITE BALANCE ADJUSTMENT
- SUB BRIGHTNESS ADJUSTMENT

#### 7.3.4.2. How to enter EVR adjustment mode

Press and hold STOP, PLAY, and VOL- buttons on the unit together over 5 seconds with no cassette inserted.

The adjustment overlay will appear.

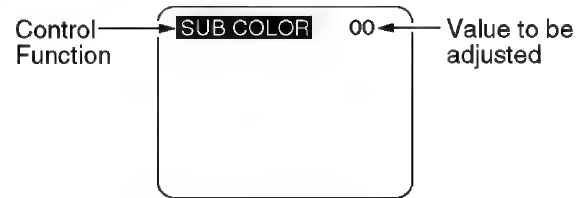


Fig. E4-1

##### 7.3.4.2.1. How to adjust:

1. Press CH UP/DOWN key on the remote control to select control function to be adjusted.

**Important Note:**

**Make a note of the original value of the controls before modifying in case the wrong control is adjusted.**

2. Press VOL +/- key on the remote control so that the shaded area moves to the value.

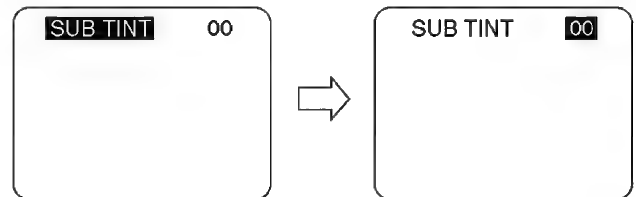


Fig. E4-2

3. Press CH UP/DOWN key on the remote control to adjust the value of the selected control.

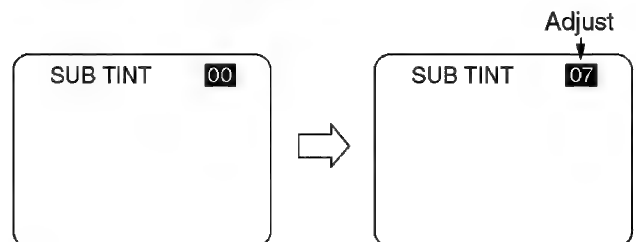


Fig. E4-3

**Note:**

You can select a desired channel by using the numbered keys on the remote control in EVR adjustment mode.

4. Press VOL +/- key on the remote control so that the shaded area moves to the control function.

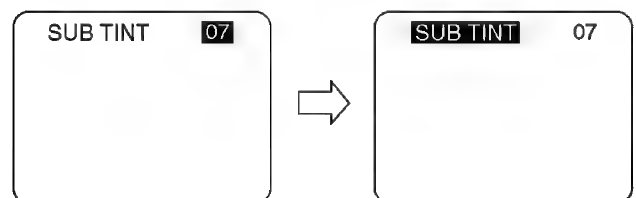


Fig. E4-4

5. Press CH UP/DOWN key on the remote control to select a control function for the next adjustment if necessary.

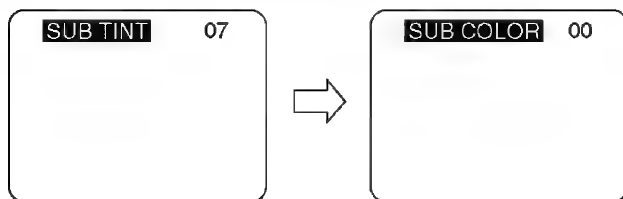


Fig. E4-5

#### 7.3.4.2.2. How to release from EVR Adjustment Mode:

Press and hold STOP, PLAY, and VOL- buttons on the unit together over 5 seconds again or press the POWER button OFF to release EVR adjustment mode. The adjusted value will be written to Memory IC (IC6004).

#### 7.3.4.3. HOW TO ENTER EVR PG SHIFTER ADJUSTMENT MODE

1. Enter EVR adjustment mode.
2. Insert the VHS Alignment Tape and playback in SP mode. The adjustment overlay will appear.

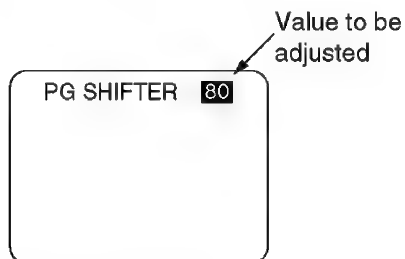


Fig. E4-6

#### 7.3.4.3.1. How to adjust:

Press CH UP/DOWN key on the remote control to adjust the value.

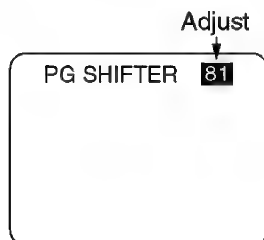


Fig. E4-7

#### 7.3.4.3.2. How to release from EVR PG Shifter Adjustment Mode:

Press STOP button or press the POWER button OFF. The adjusted value will be written to Memory IC (IC6004).

#### 7.3.4.4. HOW TO ENTER SERVICE MODE

1. Enter EVR adjustment mode.
2. Press DISPLAY key on the remote control for collapse scan.

##### Note:

Before pressing DISPLAY key on the remote control for collapse scan, select the desired control function and move the shaded area to the value for adjustments you will proceed.

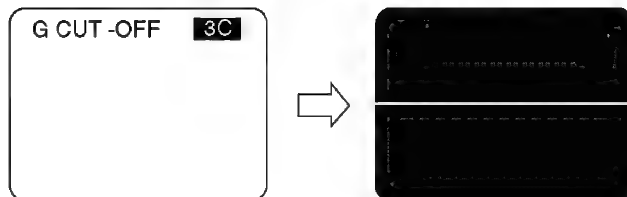


Fig. E4-8

#### 7.3.4.4.1. How to release from Service Mode:

Press DISPLAY key again on the remote control.

### 7.3.5. PG SHIFTER ADJUSTMENT

**Purpose:** Determine the Video Head Switching Point during Playback.

**Symptom of Misadjustment:** May cause Head Switching Noise and/or Vertical Jitter.

**Test Point :** **TP3001 (TV/VCR Main C.B.A.),**  
**TP6205 (TV/VCR Main C.B.A.)**

**Adjustment :** **PG SHIFTER (EVR)**

**Specification :**  **$T = 6 H \pm 1 H$  ( $0.38 ms \pm 0.06 ms$ )**

**INPUT :** -----

**Mode :** SP Playback

**Equipment :** Oscilloscope,  
VHS Alignment Tape (VFMS0003H6)

1. Enter EVR PG Shifter Adjustment mode, refer to "HOW TO ENTER EVR PG SHIFTER ADJUSTMENT MODE."
2. Connect the channel-1 scope probe to TP3001 and the channel-2 scope probe to TP6205. Used TP6205 as a trigger.
3. Adjust value so that the trailing edge of the head switching pulse is placed  $6 H \pm 1 H$  ( $0.38 ms \pm 0.06 ms$ ) before the start of the vertical sync pulse.
4. Release EVR PG Shifter Adjustment Mode.

The adjusted value will be written to Memory IC (IC6004).

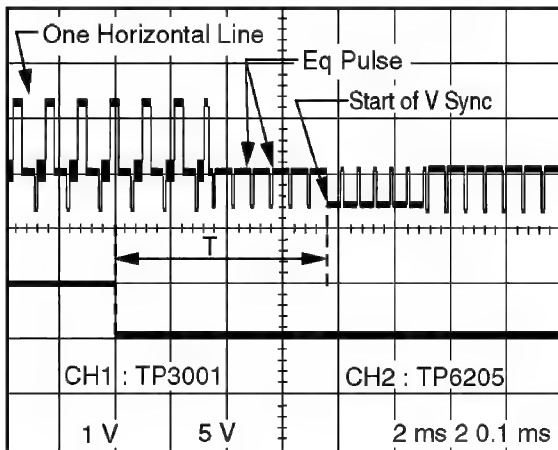


Fig. E5

### 7.3.6. SUB CONTRAST ADJUSTMENT

**Purpose:** To set the optimum sub contrast level.

**Symptom of Misadjustment:** The picture is too dark or too light.

**Test Point :** **Pin 5 of P6001 (TV/VCR Main C.B.A.) or TP49 (CRT C.B.A.)**

**Adjustment :** **SUB CONTRAST (EVR)**

**Specification :**  **$3.0 V[p-p] \pm 0.1 V[p-p]$**

**INPUT :** Video Input Jack,  
Crosshatch Pattern Signal  $1 V[p-p]$   
( $75 \Omega$  terminated)

**Mode :** STOP

**Equipment :** Oscilloscope,  
NTSC Video Pattern Generator

1. Supply a Crosshatch Pattern Signal to the Video Input Jack.
2. Connect the Oscilloscope to Pin 5 of P6001 on the TV/VCR Main C.B.A. or TP49 on the CRT C.B.A.
3. Select SUB BRIGHT in EVR adjustment mode. Then, after making a note of the original value, adjust to the (C0).
4. Select SUB CONTRAST in EVR adjustment mode and adjust so that the level A is  $3.0 V[p-p] \pm 0.1 V[p-p]$ .
5. Select SUB BRIGHT in EVR adjustment mode and reset to the original value.

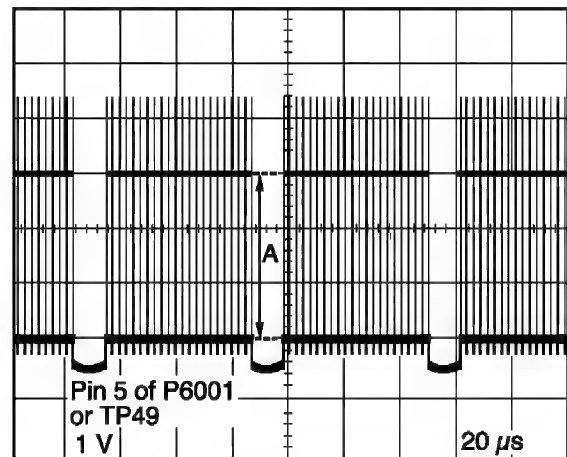


Fig. E6

### 7.3.7. FOCUS, SCREEN, CUT OFF, DRIVE ADJUSTMENT

|                           |  |
|---------------------------|--|
| Purpose:                  | To set the optimum Focus and Screen.   |
| Symptom of Misadjustment: | The picture is out of Focus and there will be an improper screen color mix.  |
| Test Point :              | <b>TP50 (CRT C.B.A.)</b>   |
| Adjustment :              | <b>FOCUS CONTROL (Flyback Transformer),</b><br><b>SCREEN CONTROL (Flyback Transformer),</b><br><b>SUB BRIGHT (EVR),</b><br><b>B DRIVE (EVR),</b><br><b>G DRIVE (EVR),</b><br><b>B CUT -OFF (EVR),</b><br><b>G CUT -OFF (EVR),</b><br><b>R CUT -OFF (EVR)</b> |
| Specification :           | <b>Refer to descriptions below.</b>  |
| INPUT :                   | Video Input Jack,<br>Monoscope Pattern Signal  |
| Mode :                    | STOP   |
| Equipment :               | Oscilloscope,<br>NTSC Video Pattern Generator  |

1. Supply a Monoscope Pattern Signal to the Video Input Jack.
2. Connect the Oscilloscope to TP50 on the CRT C.B.A.  
(Use TP47 for GND.)
3. Select SUB BRIGHT and move the shaded area to the value in EVR adjustment mode.
4. Adjust the FOCUS CONTROL on the Flyback Transformer so that the center of picture is the sharpest.
5. Turn the SCREEN CONTROL on the Flyback Transformer fully counterclockwise.
6. Press DISPLAY key on the remote control for collapse scan. (Refer to HOW TO ENTER SERVICE MODE.)
7. Adjust SUB BRIGHT in EVR adjustment mode so that the level A is (140 VDC $\pm$ 5 VDC: **For model with 13 inch CRT**) or (170 VDC $\pm$ 5 VDC: **For model with 20 inch CRT**) or (185 VDC $\pm$ 5 VDC: **For model with 25 inch CRT**).

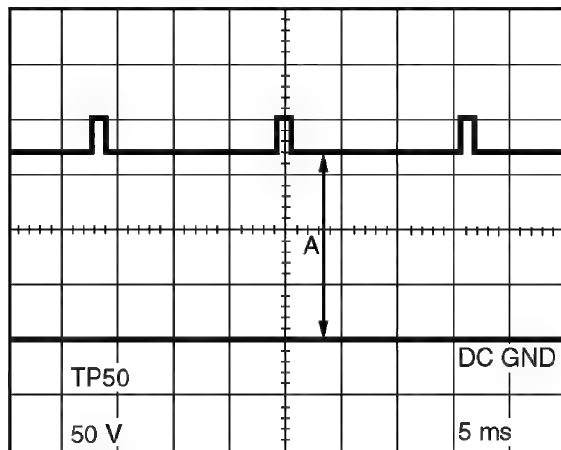


Fig. E7

8. Turn the SCREEN CONTROL on the Flyback Transformer clockwise carefully and stop at the point where any color is

first observed.

9. In EVR adjustment mode, select the two colors not observed in step 8 from the following control functions (B CUT -OFF, G CUT -OFF, or R CUT -OFF) and adjust so that the horizontal line becomes white.

For example, if the horizontal line appeared red in step 8, select and adjust the B CUT -OFF and G CUT -OFF.

(See NOTE)

10. Press DISPLAY key on the remote control again to return for full frame scan.
11. Select SUB BRIGHT in EVR adjustment mode and adjust so that the picture has adequate brightness.
12. Select G DRIVE and B DRIVE in EVR adjustment mode and adjust so that the entire screen is white.

#### Note:

Before pressing DISPLAY key on the remote control for collapse scan, select the desired control function and move the shaded area to the value.

### 7.3.8. SUB COLOR/SUB TINT ADJUSTMENT

**Purpose:** To set the standard color phase.  
**Symptom of Misadjustment:** Color phase will be shifted.  
**Test Point :** Pin 5 of P6001 (TV/VCR Main C.B.A.) or TP49 (CRT C.B.A.)

**Adjustment :** SUB COLOR (EVR), SUB TINT (EVR)

**Specification :**  $C = 1.40 \text{ V[p-p]} \pm 0.15 \text{ V[p-p]}$

(For model with 13 inch CRT)

$C = 1.50 \text{ V[p-p]} \pm 0.15 \text{ V[p-p]}$

(For model with 20/25 inch CRT)

**INPUT :** Video Input Jack,

Rainbow Color Bar

**Mode :** STOP

**Equipment :** Oscilloscope,

NTSC Video Pattern Generator

1. Supply the Rainbow Color Bar signal to Video Input Jack.
2. Select SUB BRIGHT in EVR adjustment mode. Then, after making a note of the original value, adjust to the minimum (C0).
3. Connect the Oscilloscope to Pin 5 of P6001 on the TV/VCR Main C.B.A. or TP49 on the CRT C.B.A.
4. Select SUB TINT in EVR adjustment mode and adjust so that level A and B should be equal in amplitude.

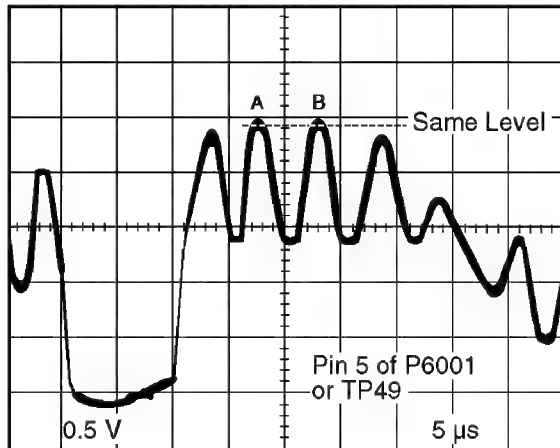


Fig. E8-1

5. Select SUB COLOR in EVR adjustment mode and adjust so that the level C is  $(1.40 \text{ V[p-p]} \pm 0.15 \text{ V[p-p]})$ : **For model with 13 inch CRT** or  $(1.50 \text{ V[p-p]} \pm 0.15 \text{ V[p-p]})$ : **For model with 20/25 inch CRT**.

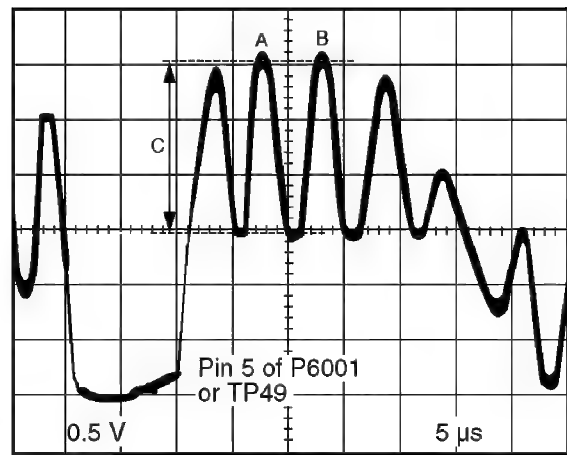


Fig. E8-2

6. Select SUB TINT in EVR adjustment mode and increase level B 1 click above the same level.
7. Select SUB BRIGHT in EVR adjustment mode and reset to the original value.

### 7.3.9. V. HEIGHT/H. POSITION ADJUSTMENT

**Purpose:** To set the standard vertical and horizontal picture size.

**Symptom of Misadjustment:** The picture size is on the vertical and horizontal axis is abnormal.

**Test Point :** -----

**Adjustment :** V SIZE (EVR),  
H-CENTER (EVR),  
V POSITION (EVR)  
(For model with 13/25 inch CRT)

**Specification :** Refer to descriptions below.

**INPUT :** Video Input Jack,

Monoscope Pattern Signal

**Mode :** STOP

**Equipment :** NTSC Video Pattern Generator

(For model with 13 inch CRT)

1. Supply a Monoscope Pattern Signal to the Video Input Jack.
2. Select H-CENTER in EVR adjustment mode and adjust so that width A is approximately equal to width B.

**Note:**

Width A is wider than width B slightly.

3. Select V SIZE in EVR adjustment mode and adjust so that the 11th line is just in view.
4. If the line are not positioned correctly, select V POSITION in adjustment mode and adjust correctly.

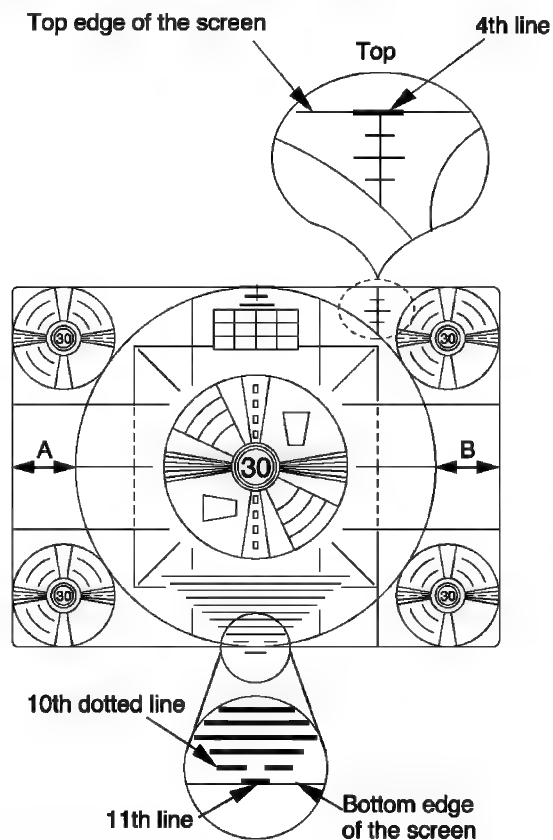


Fig. E9-1

(For model with 20/25 inch CRT)

1. Supply a Monoscope Pattern Signal to the Video Input Jack.

2. Select H-CENTER in EVR adjustment mode and adjust so that A is approximately equal to width B.
3. Select V SIZE in EVR adjustment mode and adjust so that the top 4th line is just in view.
4. Confirm that the bottom 3rd line is in view and that the bottom 4th line is out of view.

(For model with 25 inch CRT only)

If the line are not positioned correctly, select V POSITION in adjustment mode and adjust correctly.

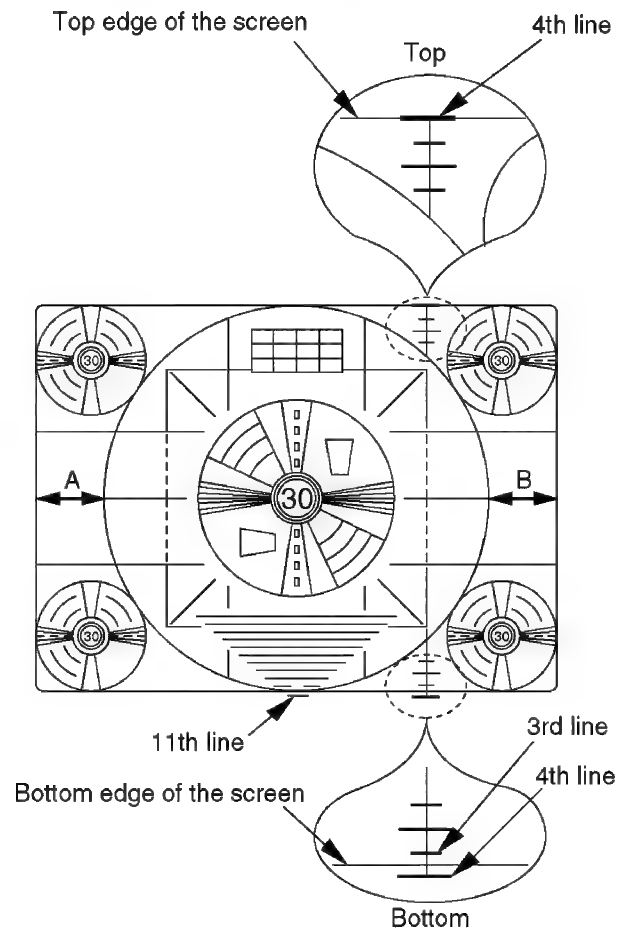


Fig. E9-2



### 7.3.10. WHITE BALANCE ADJUSTMENT

|                           |  |
|---------------------------|--|
| Purpose:                  | To set the standard white level for each color temperature.  |
| Symptom of Misadjustment: | White becomes bluish or reddish.   |
| Test Point :              | <b>TP50 (CRT C.B.A)</b>  |
| Adjustment :              | <b>FOCUS CONTROL (Flyback Transformer),</b><br><b>SCREEN CONTROL (Flyback Transformer),</b><br><b>SUB BRIGHT (EVR),</b><br><b>G DRIVE (EVR),</b><br><b>B DRIVE (EVR),</b><br><b>R CUT -OFF (EVR),</b><br><b>G CUT -OFF (EVR),</b><br><b>B CUT -OFF (EVR)</b> |
| Specification :           | <b>Refer to descriptions below.</b>  |
| INPUT :                   | Video Input Jack,<br>Monoscope Pattern Signal,<br>White Pattern Signal   |
| Mode :                    | STOP   |
| Equipment :               | NTSC Video Pattern Generator,<br>White Pattern Generator,<br>Oscilloscope  |

1. Supply a Monoscope Pattern Signal to the Video Input Jack.
2. Connect the Oscilloscope to TP50 on the CRT C.B.A.  
(Use TP47 for GND.)
3. Select SUB BRIGHT and move the shaded area to the value in EVR adjustment mode.
4. Adjust the FOCUS CONTROL on the Flyback Transformer so that the center of picture is the sharpest.
5. Turn the SCREEN CONTROL on Flyback Transformer fully counterclockwise.
6. Press DISPLAY key on the remote control for collapse scan. (Refer to HOW TO ENTER SERVICE MODE.)
7. Adjust SUB BRIGHT in EVR adjustment mode so that the level A is (140 VDC $\pm$ 5 VDC: **For model with 13 inch CRT**) or (170 VDC $\pm$ 5 VDC: **For model with 20 inch CRT**) or (185 VDC $\pm$ 5 VDC: **For model with 25 inch CRT**).

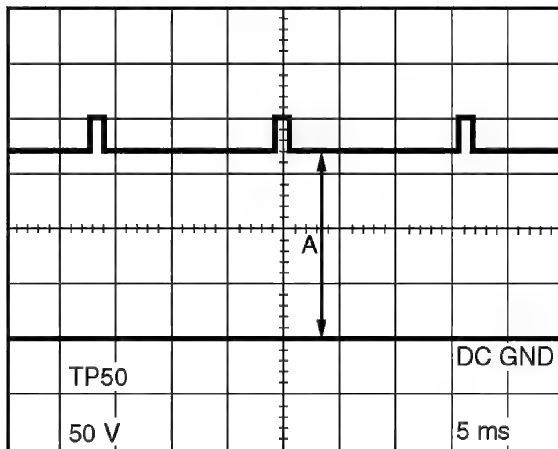


Fig. E10

8. Turn the SCREEN CONTROL on the Flyback Transformer

clockwise carefully and stop at the point where any color is first observed.

9. In EVR adjustment mode, select the two colors not observed in step 8 from the following control functions (B CUT -OFF, G CUT -OFF, or R CUT -OFF) and adjust so that the horizontal line becomes white.

For example, if the horizontal line appeared red in step 8, select and adjust the B CUT -OFF and G CUT -OFF.

(See NOTE)

10. Supply a White Pattern Signal to the Video Input Jack.
11. Press DISPLAY key on the remote control again to return for full frame scan.
12. Select G DRIVE and B DRIVE in EVR adjustment mode and adjust so that the entire screen is white.
13. Select SUB BRIGHT in EVR adjustment mode. Then, after making a note of the original value, adjust to the minimum (C0) and while turning SUB BRIGHT value from minimum (C0) up to maximum (3F), confirm that the screen is tracking the White Pattern properly. Repeat the above steps 5, 9, 11, and 12 until the screen is properly tracking the White Pattern.

#### Note:

Before pressing DISPLAY key on the remote control for collapse scan, select the desired control function and move the shaded area to the value.

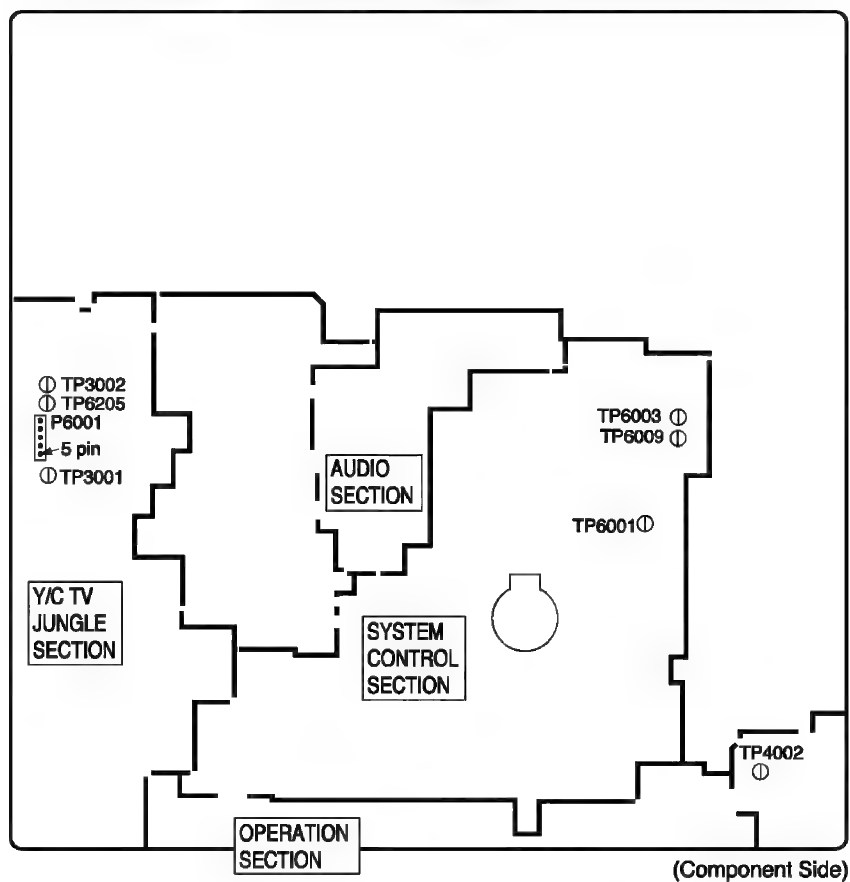
### 7.3.11. SUB BRIGHTNESS ADJUSTMENT

|                           |  |
|---------------------------|--|
| Purpose:                  | To set the optimum brightness level.   |
| Symptom of Misadjustment: | The picture is too white or too black. |
| Test Point :              | -----                                  |
| Adjustment :              | <b>SUB BRIGHT (EVR)</b>                |
| Specification :           | <b>Refer to descriptions below.</b>    |
| INPUT :                   | -----                                  |
| Mode :                    | STOP                                   |

1. Do not input any signal to the unit.
2. Set INPUT SELECT item to LINE in SET UP TV menu to display black screen.
3. Select SUB BRIGHT in EVR adjustment mode, and adjust so that the black screen starts to turn gray (lighting only).

## 7.4. TEST POINTS AND CONTROL LOCATION

### TV/VCR Main C.B.A. (For model with 13/20 inch CRT)

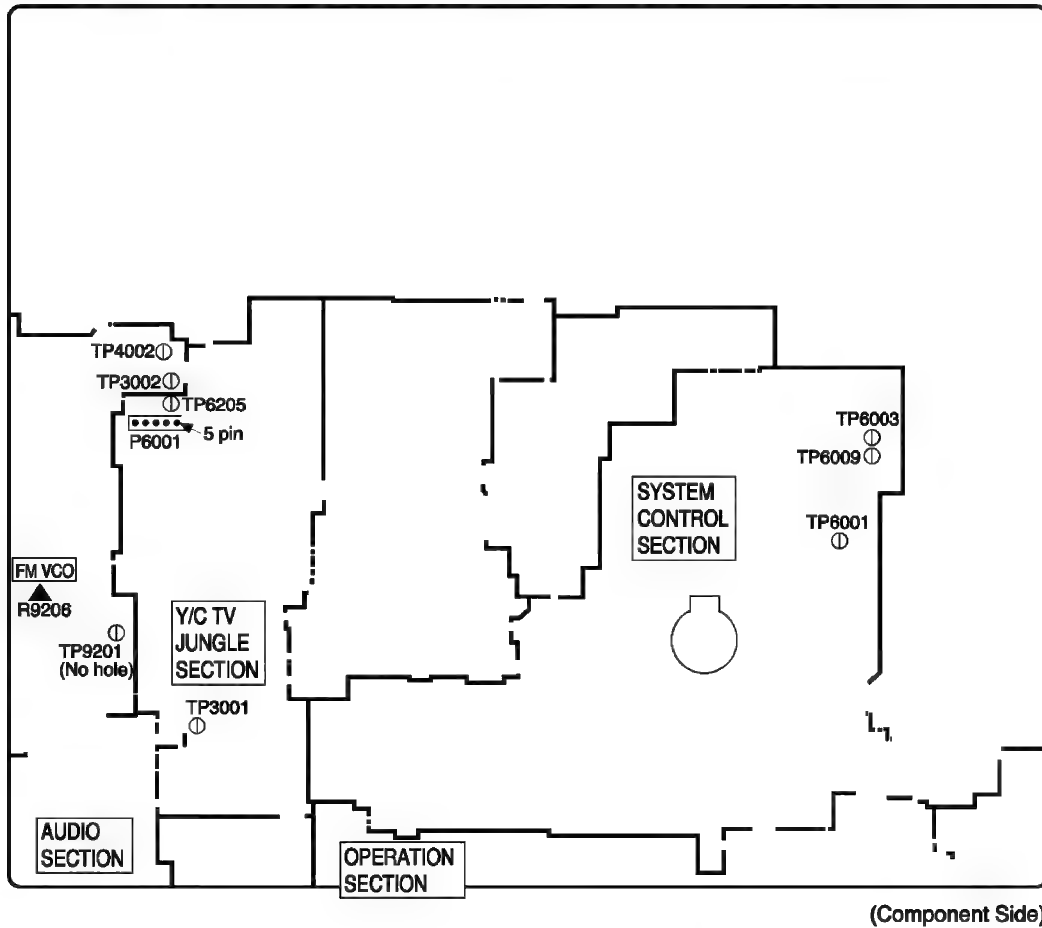


| FUNCTION OF IMPORTANT TEST POINTS |  |
|-----------------------------------|--|
| TP3001                            | Video Signal   |
| TP3002                            | REC/PB Video envelope signal                           |
| TP4002                            | Normal Audio signal                                    |
| TP6001                            | Service Test Point (inhibit sensors)                   |
| TP6003                            | Defeat Auto tracking function (connect to +5V(TP6009)) |
| TP6009                            | +5V  |
| TP6205                            | Head SW.   |

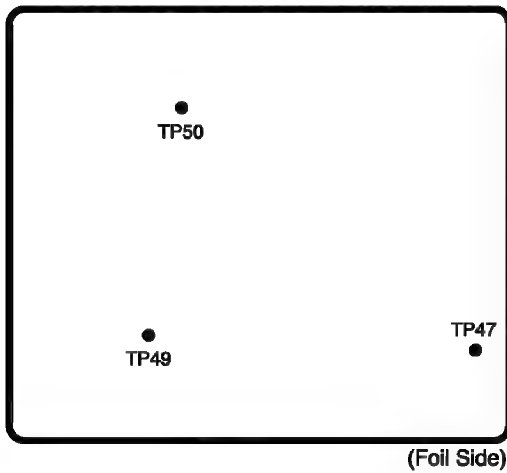
#### Test Point Information

- Test Point with a Test Pin.
- ⊙ Test Point with a jumper wire across a hole in the P.C.B.
- Test Point with no Test Pin.

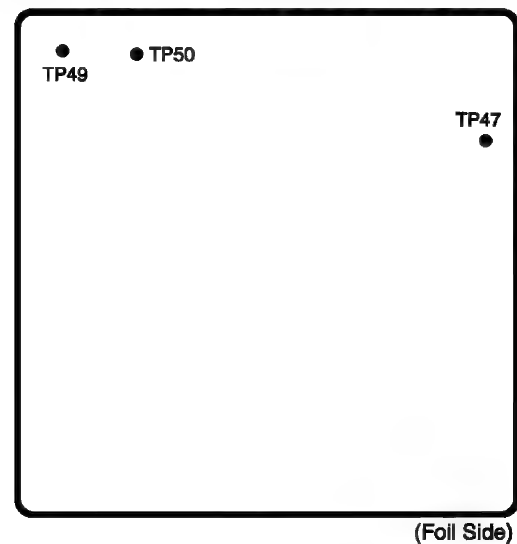
# TV/VCR Main C.B.A. (For model with 20 inch CRT TV Stereo/25 inch CRT)



## CRT C.B.A. (For model with 13 inch CRT)



## CRT C.B.A. (For model with 20/25 inch CRT)






## 8 SCHEMATIC DIAGRAMS

### 8.1. SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES

#### 1. Important safety notice

Components identified by the sign  have special characteristics important for safety. When replacing any of these components. Use only the specified parts.

#### 2. Do not use the part number shown on this drawing for ordering.

The correct part number and part value is shown in the parts list, and may be slightly different or amended since this drawing was prepared.

#### 3. Use only original replacement parts:

To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

#### 4. Parts different in shape or size may be used.

However, only interchangeable parts will be supplied as service replacement parts.

#### 5. Test point information

● : Test point with a jumper wire across a hole in P.C.B.

○ : Test point with no test pin.

□→ : Test point with a component lead on the foil side.

### Schematic Diagram Notes

#### 1. Indication for Zener Voltage of Zener Diodes

The Zener Voltage of Zener Diodes are indicated as such on Schematic Diagrams.

Example:

(6.2V).....Zener Voltage

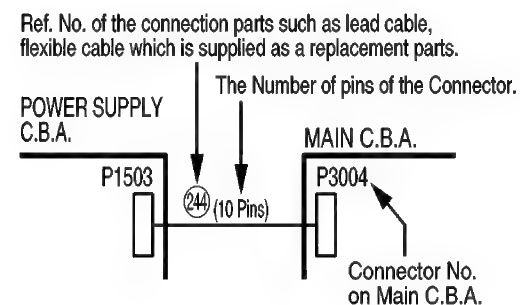
#### 2. How to identify Connectors

Each connector is labeled with a Connector No. and Pin No. Indicating what it is connected to, in other words, its counter part.

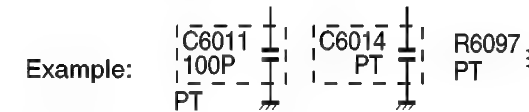
Use the interconnection schematic diagram to find the connection between associated connectors.

Example:

The connections between C.B.A.s are shown below.



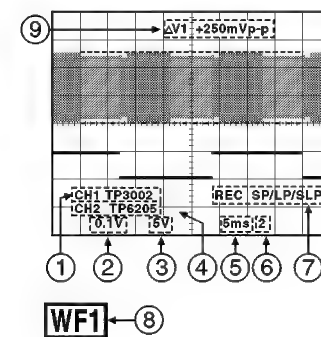
3. Parts marked "PT" are not used in any models included in this service model.



4. Jumper wires are used for WA10, WA5 etc and these are not supplied as replacement parts.

### Signal Waveform Note

How to read Signal Waveform



- ① Connecting Point
- ② Volts/Div
- ③ Volts/Div
- ④ Connecting Point
- ⑤ Time/Div
- ⑥ Trigger Channel of the scope  
(1:CH1,2:CH2)
- ⑦ Operation Mode of VCR
- ⑧ Waveform Point on Schematic
- ⑨ ΔV1:Peak to Peak

### Circuit Board Layout Note

Circuit Board Layout shows components installed for various models.

For proper parts content for the model you are servicing, please refer to the schematic diagram and parts list.

NOTE:

Circuit Board Layout includes components which are not used.

### Model No. Identification Mark

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| PV-C2523-K  | K    |
| Not Used    | PT   |

Note : Refer to item 3 of Schematic Diagram Notes for mark "PT".

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

| TERMINAL VOLTAGE   | 0V ~ 0.6V    | 0.7V ~ 1.9V | 2.0V ~ 3.1V |
|--------------------|--------------|-------------|-------------|
| KEY DATA1 (PIN 89) | CH DOWN      | VOLUME DOWN | FF/CUE      |
| KEY DATA2 (PIN 88) | CH UP        | VOLUME UP   | TV/FM       |
| KEY DATA3 (PIN 87) | PLAY /REPEAT | REW /REVIEW | REC/TIME    |
| KEY DATA4 (PIN 86) | STOP/EJECT   | ----        | POWER       |



NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

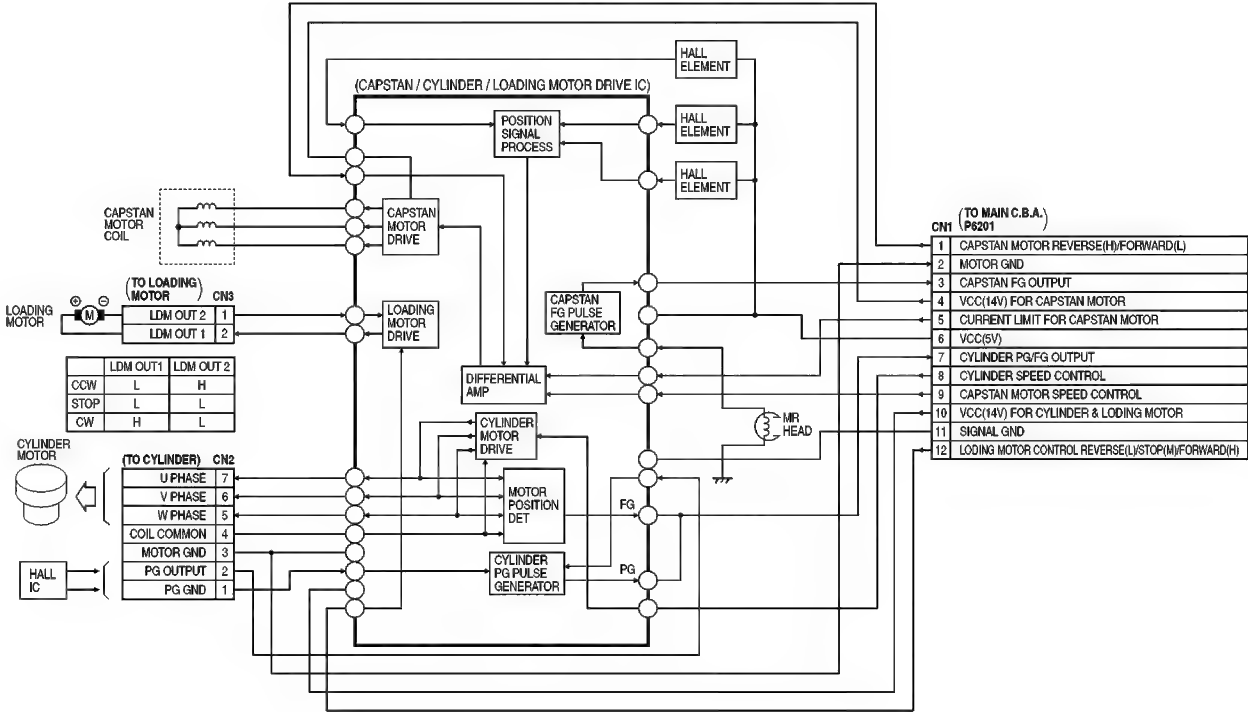
I/O CHART OF IC6001

| Pin No. | I/O | Signal Name           | Description                         |
|---------|-----|-----------------------|-------------------------------------|
| 1       | I   | P_DOWN_L              | POWER DOWN(L)                       |
| 2       | O   | CRSS_L                | CUE/REV/SLOW/STILL(L)               |
| 3       | I   | T-REEL                | TAKE-UP REEL PULSE                  |
| 4       | I   | S-REEL                | SUPPLY REEL PULSE                   |
| 5       | I   | IR-DATA               | IR-DATA                             |
| 6       | O   | DEFEAT_H              | (Not used)                          |
| 7       | O   | A_MUTE_H              | AUDIO MUTE(H)                       |
| 8       | I   | IIC_SVC_L             | I2C SERVICE MODE(L)                 |
| 9       | -   | NC                    | (Not used)                          |
| 10      | O   | TUNER_L               | (Not used)                          |
| 11      | O   | SAP/MAIN              | (Not used)                          |
| 12      | O   | MONO/MTS              | (Not used)                          |
| 13      | O   | V_MUTE_H              | (Not used)                          |
| 14      | O   | SCK                   | SERIAL CLOCK                        |
| 15      | I   | SBIO                  | (Not used)                          |
| 16      | O   | DATA_OUT              | SERIAL DATA OUTPUT                  |
| 17      | I/O | IIC_DATA              | I2C SERIAL DATA                     |
| 18      | O   | IIC_CLK               | I2C SERIAL CLOCK                    |
| 19      | I/O | BEEPER                | BEEPER                              |
| 20      | -   | NC                    | (Not used)                          |
| 21      | O   | CAP_F/R               | CAPSTAN MOTOR REVERSE(H)/FORWARD(L) |
| 22      | O   | BEEP_ON_H             | BEEPER ON(H)                        |
| 23      | O   | HSW                   | HEAD SW                             |
| 24      | O   | VLP                   | V-LOCK PULSE                        |
| 25      | I   | RST                   | RESET(L)                            |
| 26      | O   | 3.58MHz/L             | 3.58MHz                             |
| 27      | -   | NC                    | (Not used)                          |
| 28      | O   | POWER_ON_L            | POWER ON(L)                         |
| 29      | O   | V_D_REC_H             | VIDEO DELAY REC(H)                  |
| 30      | I   | LINE_SD_L             | TV SIGNAL(L)                        |
| 31      | -   | NC                    | (Not used)                          |
| 32      | O   | A_VOLUME              | AUDIO VOLUME                        |
| 33      | O   | CAP                   | CAP ERROR                           |
| 34      | O   | CYL                   | CYL ERROR                           |
| 35      | O   | SP_MUTE_L             | AUDIO AMP MUTE(L)                   |
| 36      | I   | DVDD                  | VDD                                 |
| 37      | O   | OSC-OUT               | OSC 2                               |
| 38      | I   | OSC-IN                | OSC 1                               |
| 39      | -   | DVSS                  | GND                                 |
| 40      | O   | TNR_CE_H              | TUNER CHIP ENABLE(H)                |
| 41      | I   | TNR_LOCK_L            | TUNER LOCK SIGNAL(L)                |
| 42      | I   | SXI                   | SXI                                 |
| 43      | I/O | FM_RAD_F_MONO_H/NOR_L | (Not used)                          |
| 44      | O   | TV_P_ON_H             | TV POWER ON(H)                      |
| 45      | I   | V_SYNC                | Y-SYNC                              |
| 46      | I   | H_SYNC                | H-SYNC                              |
| 47      | -   | NC                    | (Not used)                          |
| 48      | -   | VSS2_OSD              | GND                                 |
| 49      | I   | CV_IN1                | VIDEO                               |
| 50      | I   | CV_IN2                | VIDEO                               |

| Pin No. | I/O | Signal Name          | Description   |
|---------|-----|----------------------|---|
| 51      | I   | VDD2_OSD             | VDD   |
| 52      | I   | AFC_C                | AFC   |
| 53      | O   | AFC_LPF              | AFC   |
| 54      | O   | FM_RAD_H             | FM RADIO(H)   |
| 55      | O   | FSC_LPF              | FSC   |
| 56      | I   | FM_RAD_STE_L         | FM STEREO(L)  |
| 57      | I   | FM_RAD_SD_L          | FM SIGNAL(L)  |
| 58      | O   | PLAY_L               | PB(L)   |
| 59      | O   | BLK_H                | BLANKING PULSE(H)                                   |
| 60      | O   | LOAD-F/S/R           | LOADING MOTOR CONTROL REVERSE(L)/STOP(M)/FORWARD(H) |
| 61      | O   | R                    | OSD RED   |
| 62      | O   | G                    | OSD GREEN   |
| 63      | O   | B                    | OSD BLUE  |
| 64      | I   | S_TAB_ON_L           | SAFETY TAB ON(L)                                    |
| 65      | I   | Y_PFG                | CYL PG/FG   |
| 66      | I   | TNR_SD_L             | TUNER SIGNAL(L)                                     |
| 67      | O   | FGF                  | CAP FG  |
| 68      | I   | AFG                  | CAP FG  |
| 69      | O   | VRO                  | V-REF 1   |
| 70      | I   | VRI                  | V-REF 2   |
| 71      | -   | AVSS                 | GND   |
| 72      | I   | CTL_A                | CTL AMP   |
| 73      | I   | AVDD                 | VDD   |
| 74      | I/O | RCTLP                | CTL PULSE(+)  |
| 75      | -   | RCTLN                | CTL PULSE(-)  |
| 76      | O   | CTL_OUT              | PB CONTROL PULSE                                    |
| 77      | -   | NC                   | (Not used)  |
| 78      | I   | DTS_AFC              | AFC   |
| 79      | I   | OVER_CUR_H           | OVER CURRENT(H)                                     |
| 80      | I   | T-PHOTO/DEBUG_L      | TAKE-UP PHOTO TR(L)/SERVICE(L)                      |
| 81      | I   | S-PHOTO_L            | SUPPLY PHOTO TR(L)                                  |
| 82      | I   | AT_ENV               | ENV-VOLTAGE   |
| 83      | I   | 2H/4H/STE/HF/2LC_OPT | SWITCHING TERMINAL OPTION (2HEAD/4HEAD/STEREO)      |
| 84      | O   | RAD/UNIV/aux_OPT     | SWITCHING TERMINAL OPTION (FM RADIO/UNIVERSAL)      |
| 85      | -   | NC                   | (Not used)  |
| 86      | I   | KEY_IN_3             | KEY DATA 3  |
| 87      | I   | KEY_IN_2             | KEY DATA 2  |
| 88      | I   | KEY_IN_1             | KEY DATA 1  |
| 89      | I   | KEY_IN_0             | KEY DATA 0  |
| 90      | O   | PR_T_LED             | PROGRAM TIMER LED ON(L)                             |
| 91      | O   | ON_T_LED             | ON TIMER LED ON(L)                                  |
| 92      | O   | REC_LED              | REC LED ON(L)                                       |
| 93      | I   | SAP_IN_L             | (Not used)  |
| 94      | I   | MTS_IN_L             | (Not used)  |
| 95      | I   | POS.3                | MODE SW POSITION C                                  |
| 96      | I   | POS.2                | MODE SW POSITION B                                  |
| 97      | I   | POS.1                | MODE SW POSITION A                                  |
| 98      | O   | ROT_SW               | ROTARY SW   |
| 99      | O   | HA_SW                | HEAD AMP SW   |
| 100     | I   | D_ENV                | ENVELOPE DET  |

CAPSTAN MOTOR ASS'Y

NOTE:  
CAPSTAN MOTOR ASS'Y (REF. NO. 46) IS SUPPLIED AS A UNIT ONLY.  
HOWEVER, THE FLAT FLEXIBLE CABLE (REF. NO. 48) IS AVAILABLE SEPARATELY AS A REPLACEMENT PART.



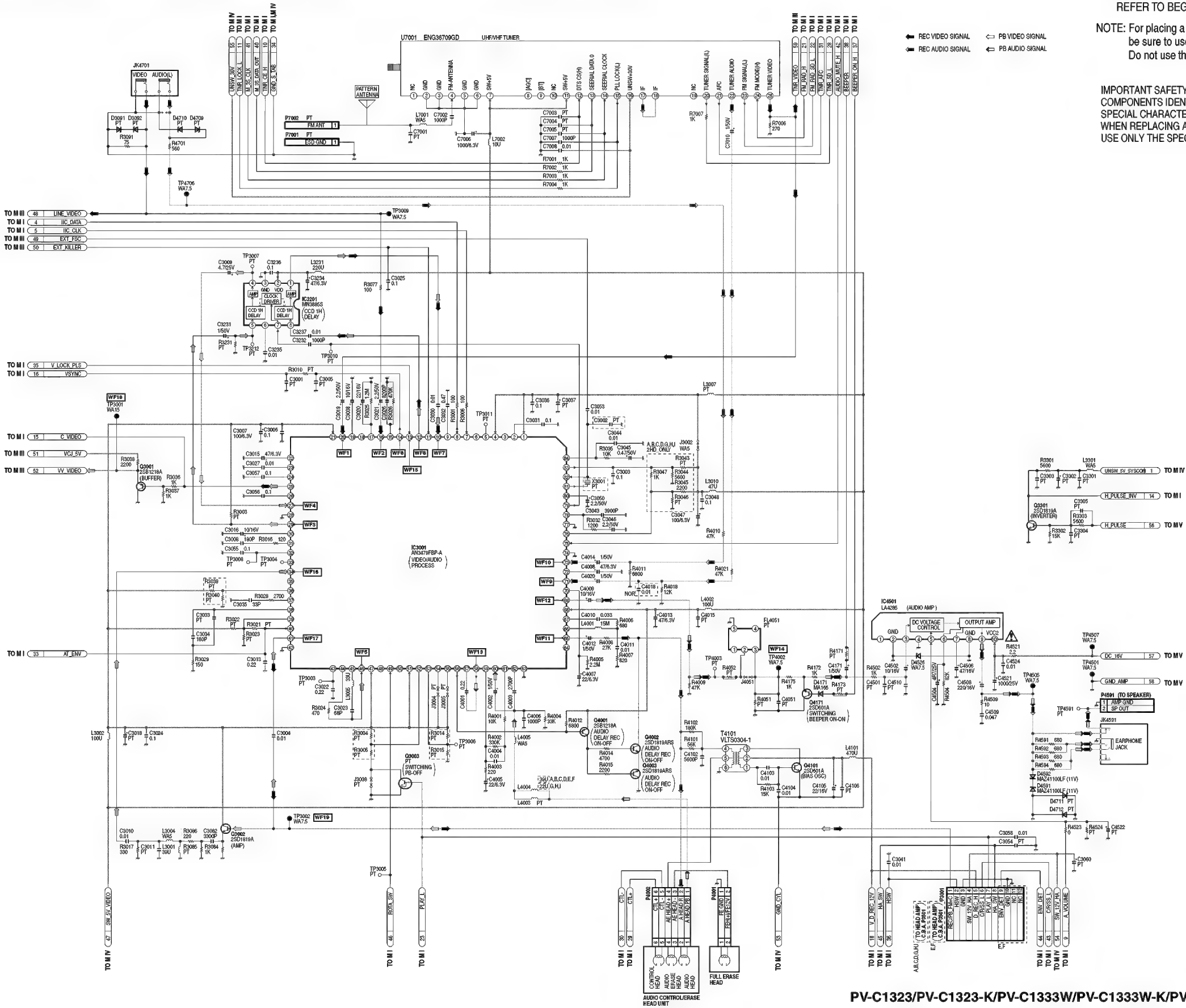
TV/VCR MAIN II (SIGNAL PROCESS/AUDIO/DEMODULATOR) SCHEMATIC DIAGRAM (A, B, C, D, E, F, G, H, I)

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |
| Not Used                              | PT   |

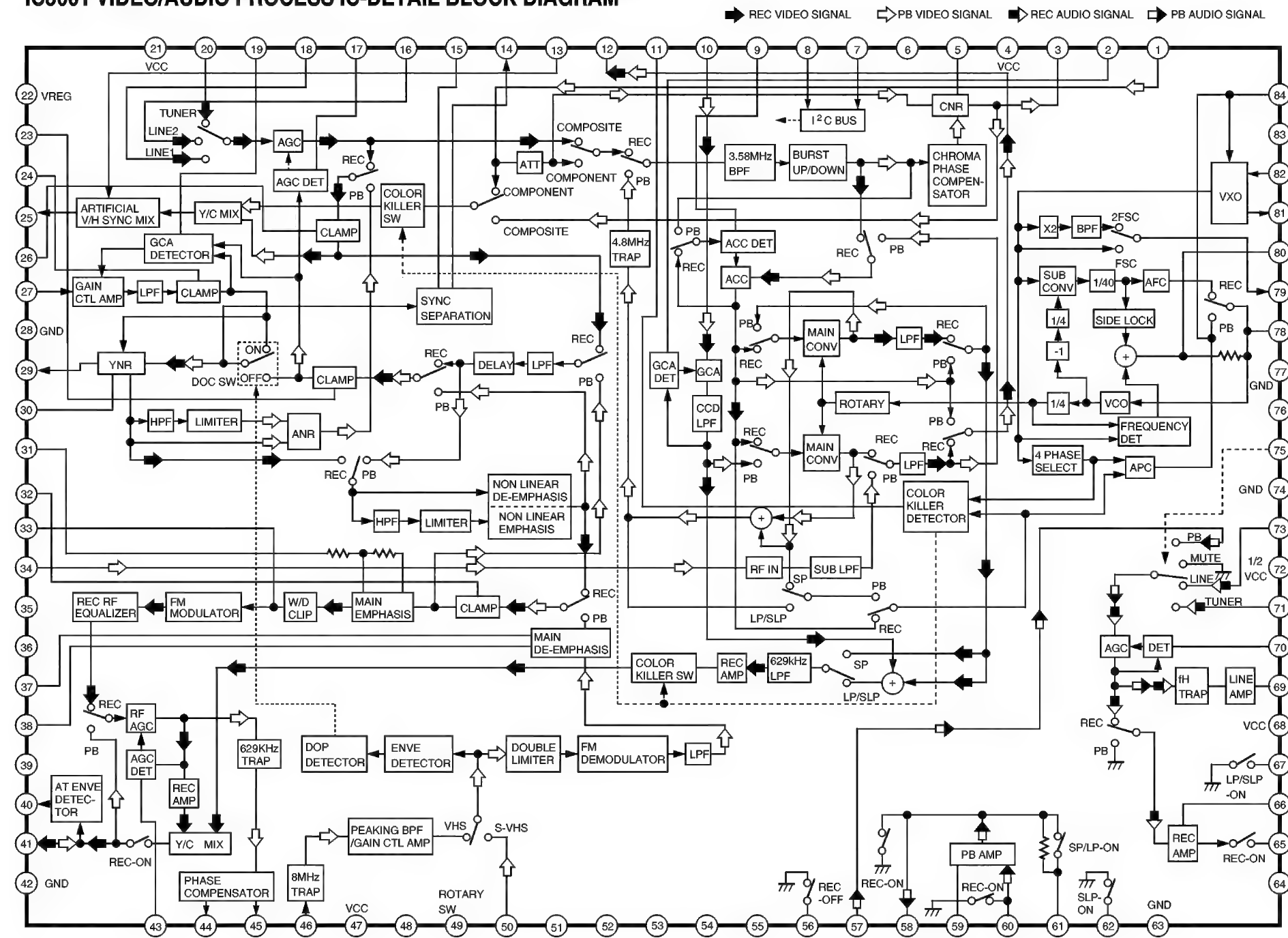
IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.



[LINK TO VOLTAGE CHART](#)  
[LINK TO SIGNAL WAVEFORM](#)

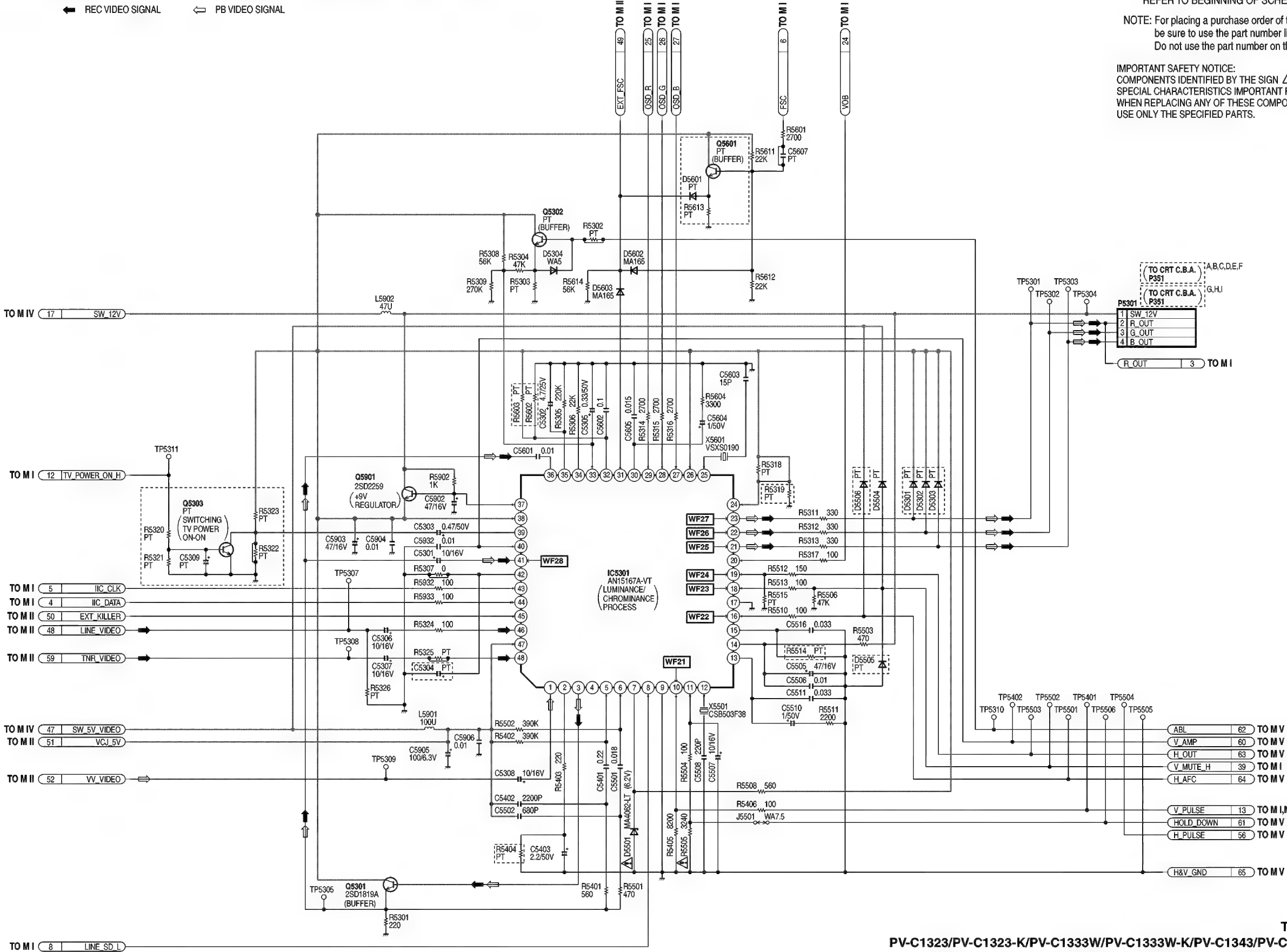


### IC3001 VIDEO/AUDIO PROCESS IC-DETAIL BLOCK DIAGRAM




IC3001 DETAIL BLOCK DIAGRAM  
PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W

### TV/VCR MAIN III (TV Y/C PROCESS) SCHEMATIC DIAGRAM (A, B, C, D, E, F, G, H, I)



NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

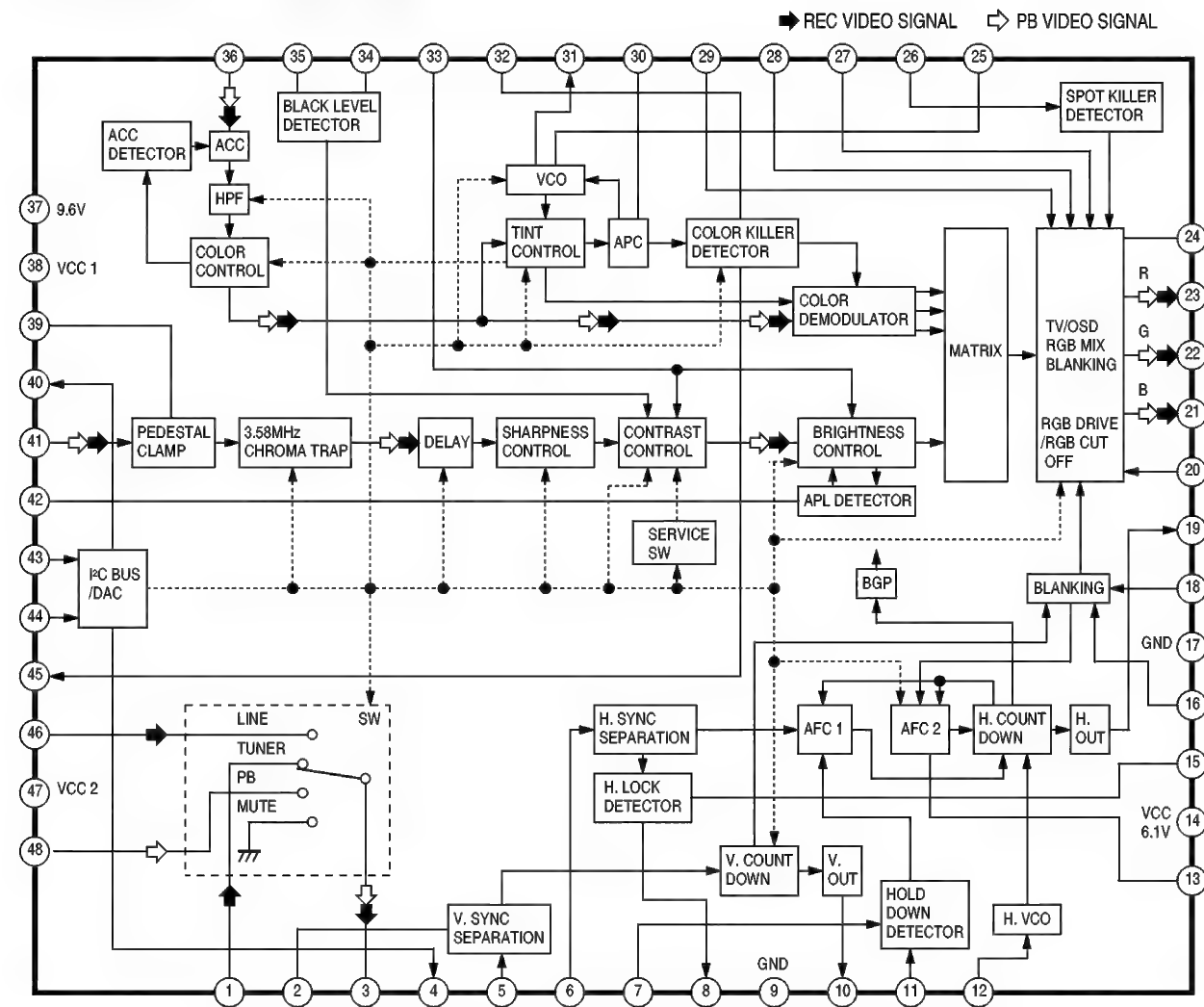
**IMPORTANT SAFETY NOTICE:**  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |
| Not Used                              | PT   |

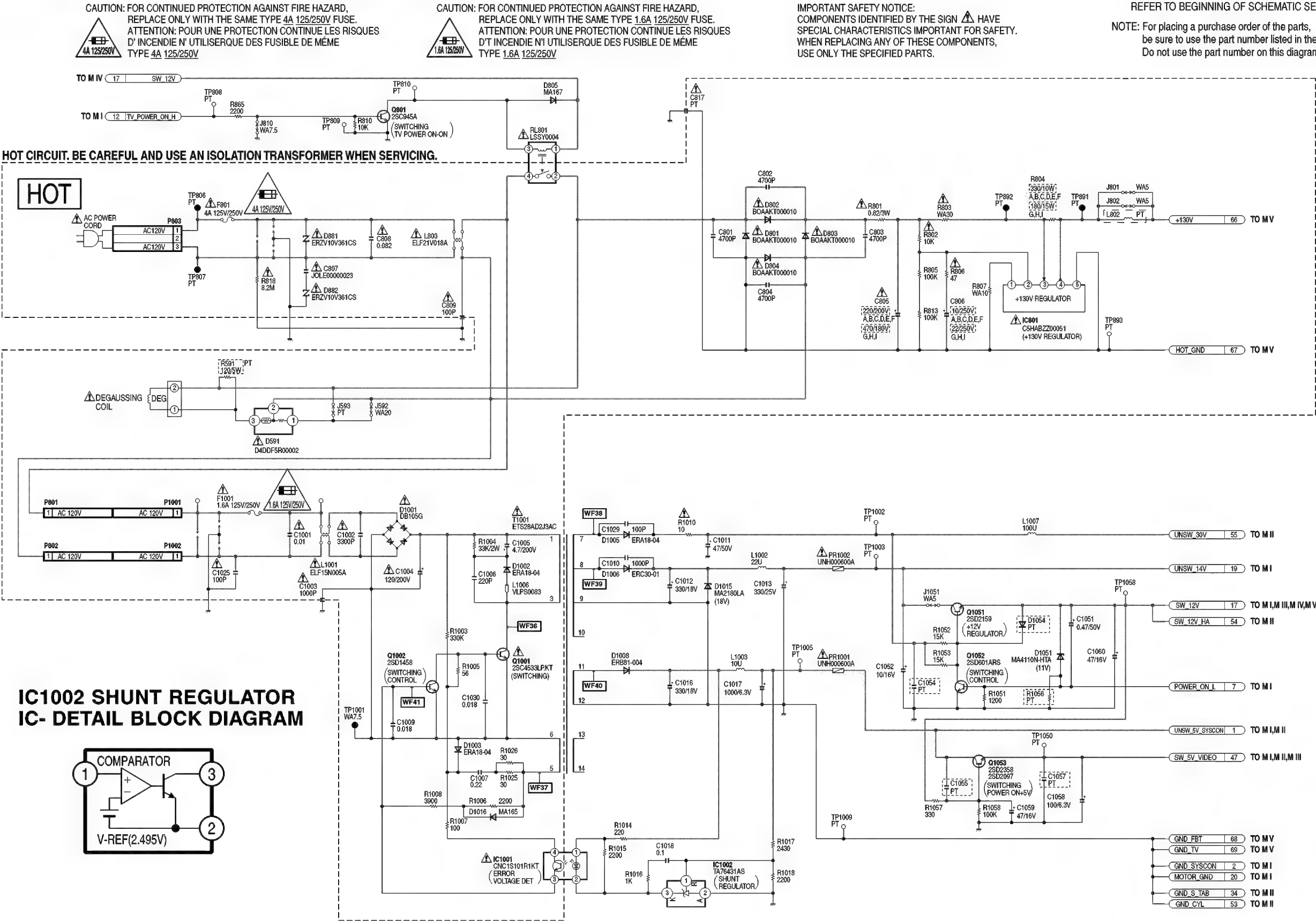
**LINK TO VOLTAGE CHART**

**LINK TO SIGNAL WAVEFORM**

# **IC5301 LUMINANCE/CHROMINANCE PROCESS IC-DETAIL BLOCK DIAGRAM**



TV/VCR MAIN IV (POWER SUPPLY) SCHEMATIC DIAGRAM (A, B, C, D, E, F, G, H, I)



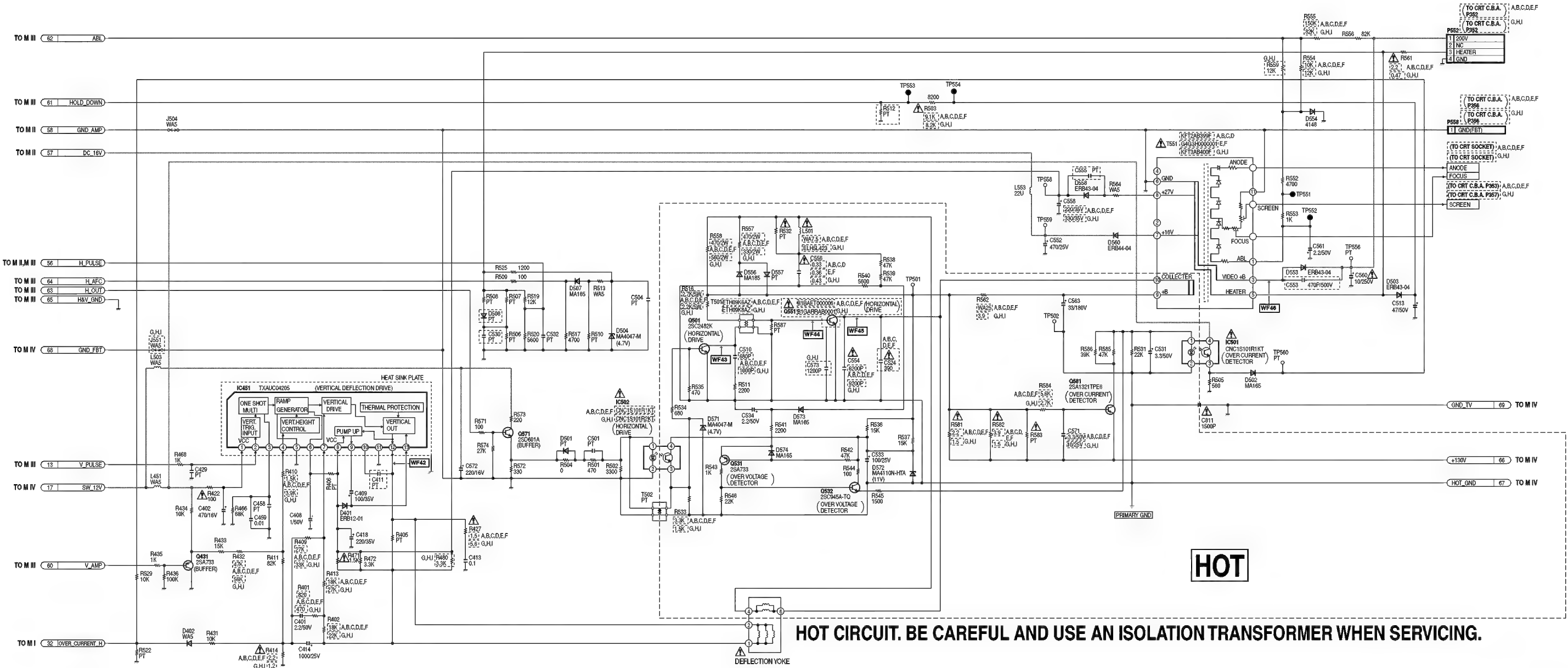
TV/VCR MAIN V (TV) SCHEMATIC DIAGRAM (A, B, C, D, E, F, G, H, I)

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN ⚡ HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.

| COMPARISON CHART OF MODELS & MARKS |      |
|------------------------------------|------|
| MODEL                              | MARK |
| PV-C1323                           | A    |
| PV-C1323-K                         | B    |
| PV-C1333W                          | C    |
| PV-C1333W-K                        | D    |
| PV-C1343                           | E    |
| PV-C1353W                          | F    |
| PV-C2023                           | G    |
| PV-C2023-K                         | H    |
| PV-C2033W                          | I    |
| PV-C2063                           | J    |
| PV-C2523-K                         | K    |
| Not Used                           | PT   |



HOT CIRCUIT. BE CAREFUL AND USE AN ISOLATION TRANSFORMER WHEN SERVICING.

[LINK TO VOLTAGE CHART](#)  
[LINK TO SIGNAL WAVEFORM](#)

### KEY VOLTAGE CHART (SW6301~6311)

NOTE: For SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| PV-C2523-K  | K    |
| Not Used    | PT   |



NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

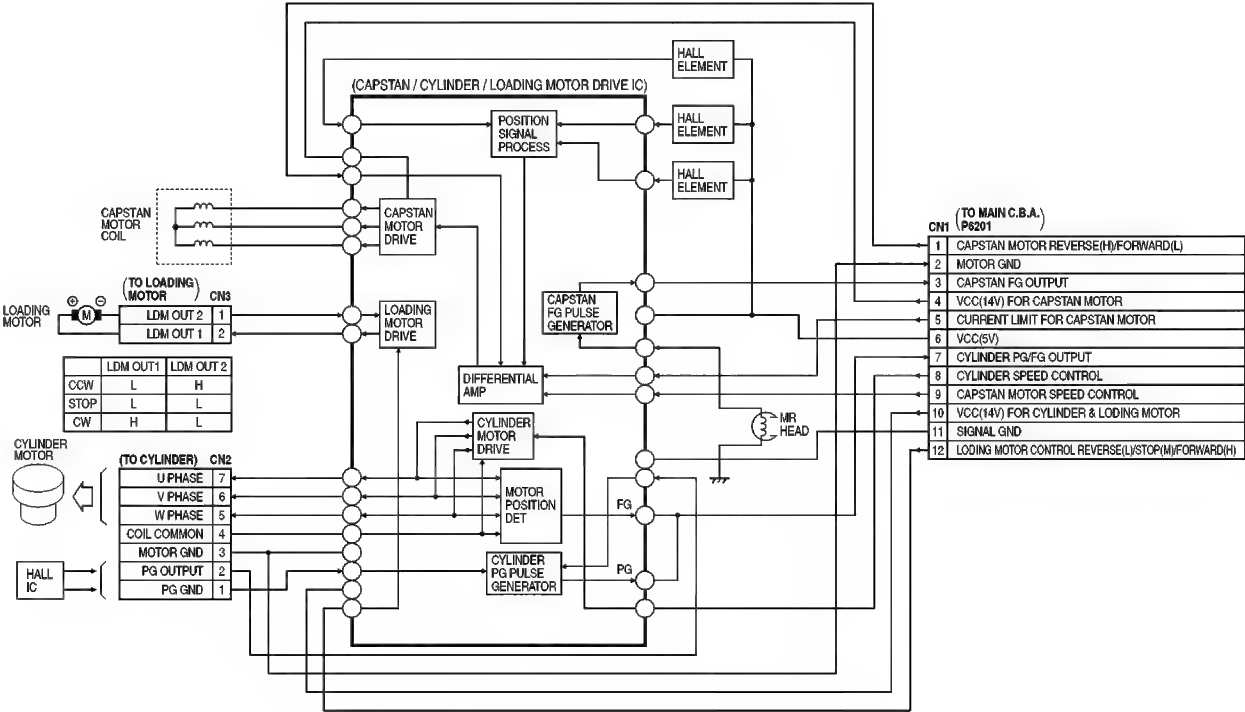
I/O CHART OF IC6001

| Pin No. | I/O | Signal Name            | Description                         |
|---------|-----|------------------------|-------------------------------------|
| 1       | I   | P_DOWN_L               | POWER DOWN(L)                       |
| 2       | O   | CRSS_L                 | CUE/REV/SLOW/STILL(L)               |
| 3       | I   | T-REEL                 | TAKE-UP REEL PULSE                  |
| 4       | I   | S-REEL                 | SUPPLY REEL PULSE                   |
| 5       | I   | IR-DATA                | IR-DATA                             |
| 6       | O   | DEFEAT_H               | AUDIO DEFEAT(H)                     |
| 7       | O   | A_MUTE_H               | AUDIO MUTE(H)                       |
| 8       | I   | IIC_SVC_L              | I2C SERVICE MODE(L)                 |
| 9       | -   | NC                     | (Not used)                          |
| 10      | O   | TUNER_L                | TV TUNER(H)/FM TUNER(L)             |
| 11      | O   | SAP/MAIN               | SAP(H)/MAIN(L)                      |
| 12      | O   | MONO/MTS               | MONO(H)/STEREO(L)                   |
| 13      | O   | V_MUTE_H               | (Not used)                          |
| 14      | O   | SCK                    | SERIAL CLOCK                        |
| 15      | I   | SBIO                   | (Not used)                          |
| 16      | O   | DATA_OUT               | SERIAL DATA OUTPUT                  |
| 17      | I/O | IIC_DATA               | I2C SERIAL DATA                     |
| 18      | O   | IIC_CLK                | I2C SERIAL CLOCK                    |
| 19      | I/O | BEEPER                 | BEEPER                              |
| 20      | -   | NC                     | (Not used)                          |
| 21      | O   | CAP_F/R                | CAPSTAN MOTOR REVERSE(H)/FORWARD(L) |
| 22      | O   | BEEP_ON_H              | BEEPER ON(H)                        |
| 23      | O   | HSW                    | HEAD SW                             |
| 24      | O   | VLP                    | V-LOCK PULSE                        |
| 25      | I   | RST                    | RESET(L)                            |
| 26      | O   | 3.58MHz/L              | 3.58MHz                             |
| 27      | -   | NC                     | (Not used)                          |
| 28      | O   | POWER_ON_L             | POWER ON(L)                         |
| 29      | O   | V_D_REC_H              | VIDEO DELAY REC(H)                  |
| 30      | I   | LINE_SD_L              | TV SIGNAL(L)                        |
| 31      | -   | NC                     | (Not used)                          |
| 32      | O   | A_VOLUME               | AUDIO VOLUME                        |
| 33      | O   | CAP                    | CAP ERROR                           |
| 34      | O   | CYL                    | CYL ERROR                           |
| 35      | O   | SP_MUTE_L              | AUDIO AMP MUTE(L)                   |
| 36      | I   | DVDD                   | VDD                                 |
| 37      | O   | OSC-OUT                | OSC 2                               |
| 38      | I   | OSC-IN                 | OSC 1                               |
| 39      | -   | DVSS                   | GND                                 |
| 40      | O   | TNR_CE_H               | TUNER CHIP ENABLE(H)                |
| 41      | I   | TNR_LOCK_L             | TUNER LOCK SIGNAL(L)                |
| 42      | I   | SXI                    | SXI                                 |
| 43      | I/O | FM_RAD_F_MONO_H/MONO_L | FM MONO(H)                          |
| 44      | O   | TV_P_ON_H              | TV POWER ON(H)                      |
| 45      | I   | V_SYNC                 | Y-SYNC                              |
| 46      | I   | H_SYNC                 | H-SYNC                              |
| 47      | -   | NC                     | (Not used)                          |
| 48      | -   | VSS2_OSD               | GND                                 |
| 49      | I   | CV_IN1                 | VIDEO                               |
| 50      | I   | CV_IN2                 | VIDEO                               |

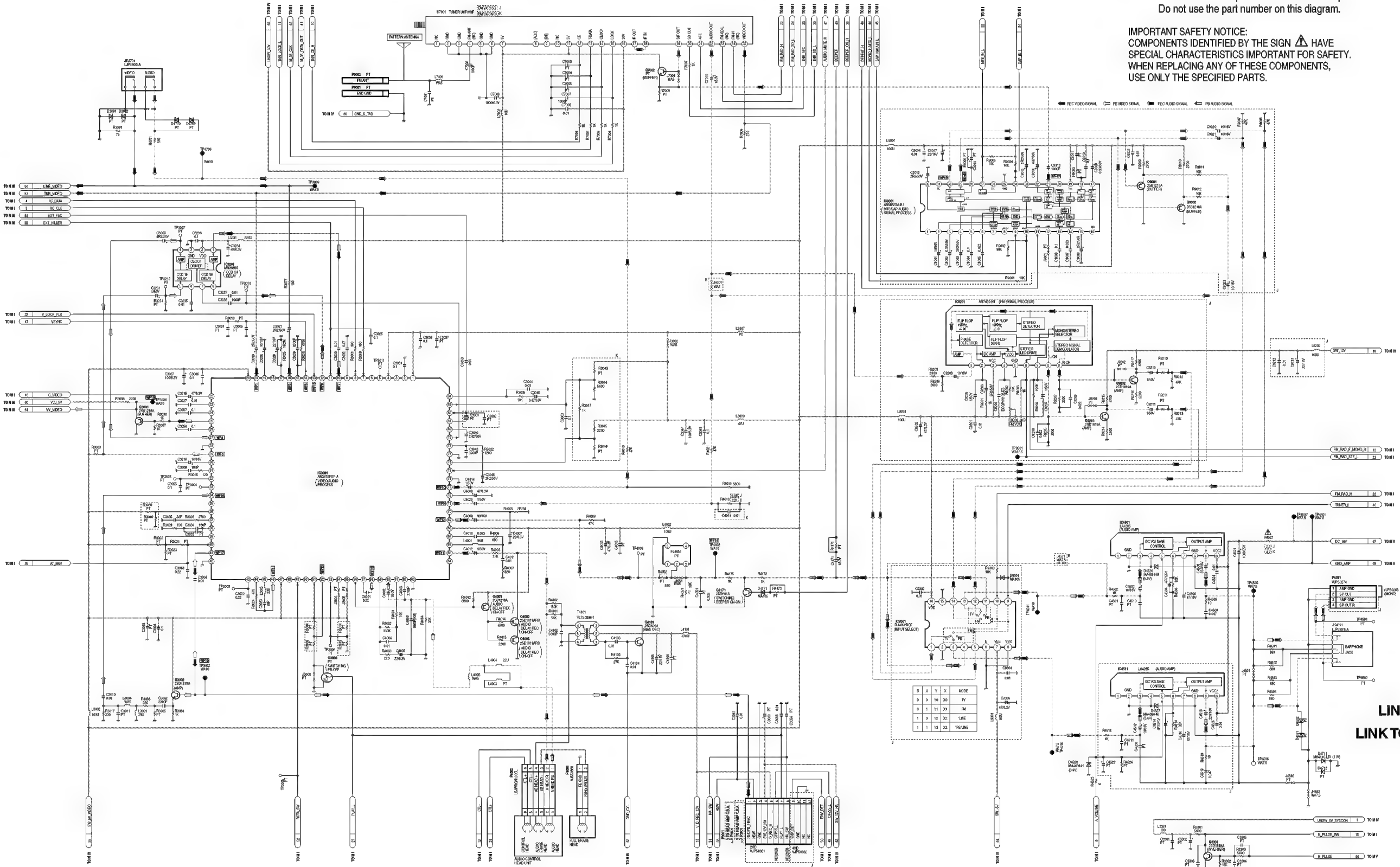
| Pin No. | I/O | Signal Name          | Description   |
|---------|-----|----------------------|---|
| 51      | I   | VDD2_OSD             | VDD   |
| 52      | I   | AFC_C                | AFC   |
| 53      | O   | AFC_LPF              | AFC   |
| 54      | O   | FM_RAD_H             | FM RADIO(H)   |
| 55      | O   | FSC_LPF              | FSC   |
| 56      | I   | FM_RAD_STE_L         | FM STEREO(L)  |
| 57      | I   | FM_RAD_SD_L          | FM SIGNAL(L)  |
| 58      | O   | PLAY_L               | PB(L)   |
| 59      | O   | BLK_H                | BLANKING PULSE(H)                                   |
| 60      | O   | LOAD-F/S/R           | LOADING MOTOR CONTROL REVERSE(L)/STOP(M)/FORWARD(H) |
| 61      | O   | R                    | OSD RED   |
| 62      | O   | G                    | OSD GREEN   |
| 63      | O   | B                    | OSD BLUE  |
| 64      | I   | S_TAB_ON_L           | SAFETY TAB ON(L)                                    |
| 65      | I   | Y_PFG                | CYL PG/FG   |
| 66      | I   | TNR_SD_L             | TUNER SIGNAL(L)                                     |
| 67      | O   | FGF                  | CAP FG  |
| 68      | I   | AFG                  | CAP FG  |
| 69      | O   | VRO                  | V-REF 1   |
| 70      | I   | VRI                  | V-REF 2   |
| 71      | -   | AVSS                 | GND   |
| 72      | I   | CTLA                 | CTL AMP   |
| 73      | I   | AVDD                 | VDD   |
| 74      | I/O | RCTLP                | CTL PULSE(+)  |
| 75      | -   | RCTLN                | CTL PULSE(-)  |
| 76      | O   | CTL_OUT              | PB CONTROL PULSE                                    |
| 77      | -   | NC                   | (Not used)  |
| 78      | I   | DTS_AFC              | AFC   |
| 79      | I   | OVER_CUR_H           | OVER CURRENT(H)                                     |
| 80      | I   | T-PHOTO/DEBUG_L      | TAKE-UP PHOTO TR(L)/SERVICE(L)                      |
| 81      | I   | S-PHOTO_L            | SUPPLY PHOTO TR(L)                                  |
| 82      | I   | AT_ENV               | ENV-VOLTAGE   |
| 83      | I   | 2H/4H/STE/HF/2LC_OPT | SWITCHING TERMINAL OPTION (2HEAD/4HEAD/STEREO)      |
| 84      | O   | RAD/UNIV/aux_OPT     | SWITCHING TERMINAL OPTION (FM RADIO/UNIVERSAL)      |
| 85      | -   | NC                   | (Not used)  |
| 86      | I   | KEY_IN_3             | KEY DATA 3  |
| 87      | I   | KEY_IN_2             | KEY DATA 2  |
| 88      | I   | KEY_IN_1             | KEY DATA 1  |
| 89      | I   | KEY_IN_0             | KEY DATA 0  |
| 90      | O   | PR_T_LED             | PROGRAM TIMER LED ON(L)                             |
| 91      | O   | ON_T_LED             | ON TIMER LED ON(L)                                  |
| 92      | O   | REC_LED              | REC LED ON(L)                                       |
| 93      | I   | SAP_IN_L             | SAP SIGNAL(L)                                       |
| 94      | I   | MTS_IN_L             | MTS SIGNAL(L)                                       |
| 95      | I   | POS.3                | MODE SW POSITION C                                  |
| 96      | I   | POS.2                | MODE SW POSITION B                                  |
| 97      | I   | POS.1                | MODE SW POSITION A                                  |
| 98      | O   | ROT_SW               | ROTARY SW   |
| 99      | O   | HA_SW                | HEAD AMP SW   |
| 100     | I   | D_ENV                | ENVELOPE DET  |

CAPSTAN MOTOR ASS'Y

NOTE:  
CAPSTAN MOTOR ASS'Y (REF. NO. 46) IS SUPPLIED AS A UNIT ONLY.  
HOWEVER, THE FLAT FLEXIBLE CABLE (REF. NO. 48) IS AVAILABLE SEPARATELY AS A REPLACEMENT PART.




TV/VCR MAIN II (SIGNAL PROCESS/AUDIO/DEMODULATOR) SCHEMATIC DIAGRAM (J, K)



NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

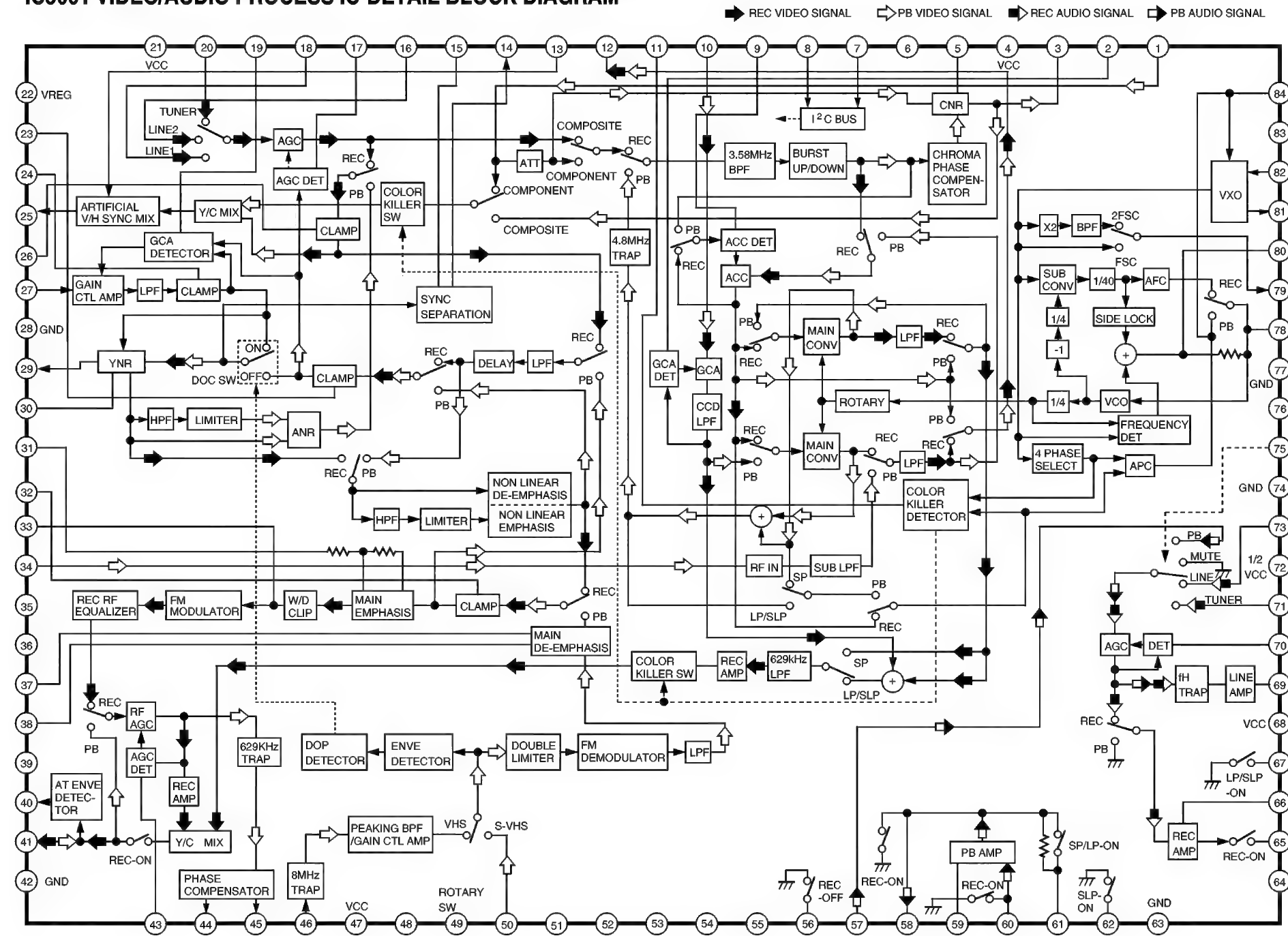
IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |
| Not Used                              | PT   |

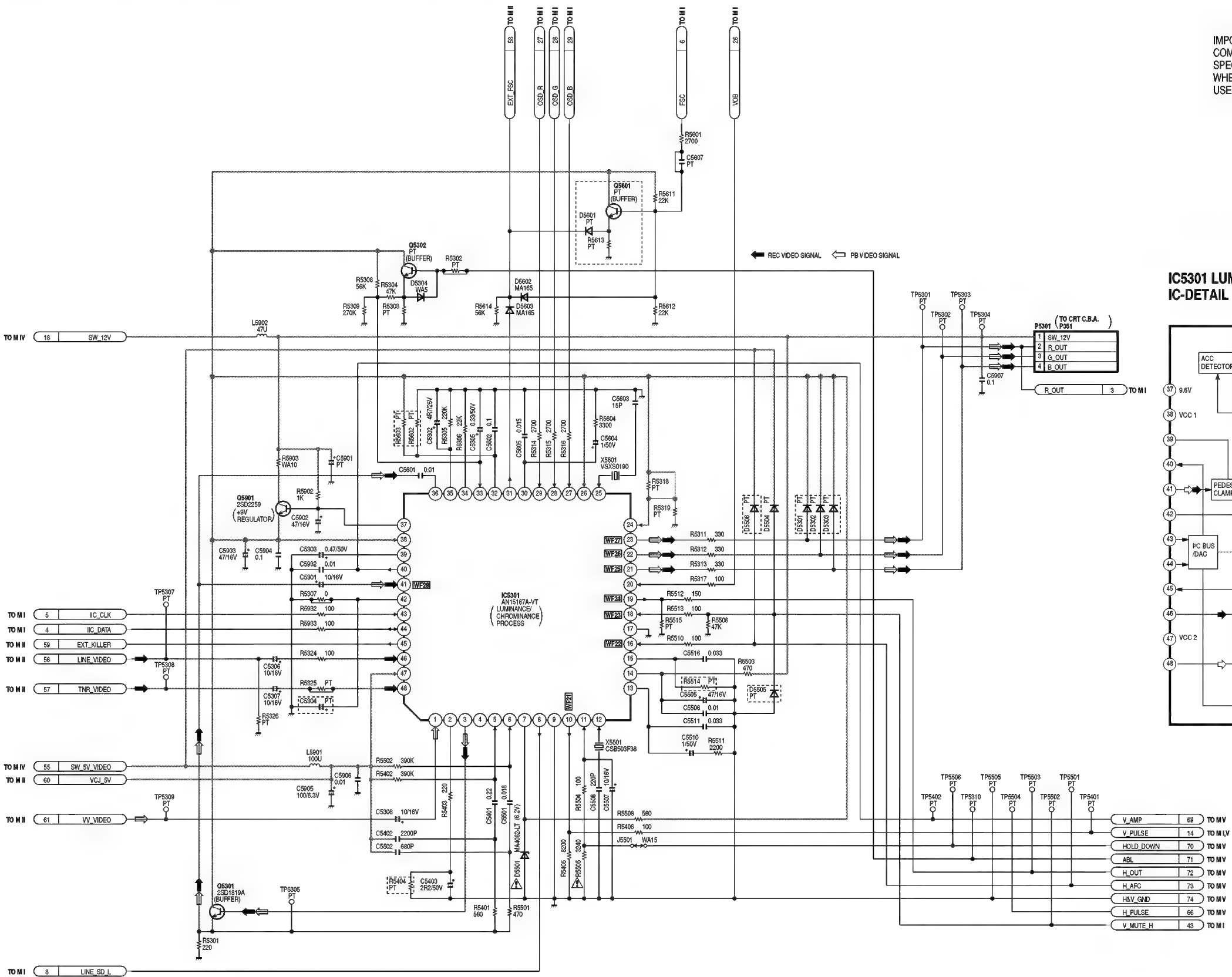
[LINK TO VOLTAGE CHART](#)  
[LINK TO SIGNAL WAVEFORM](#)



IC3001 VIDEO/AUDIO PROCESS IC-DETAIL BLOCK DIAGRAM




### TV/VCR MAIN III (TV Y/C PROCESS) SCHEMATIC DIAGRAM (J, K)



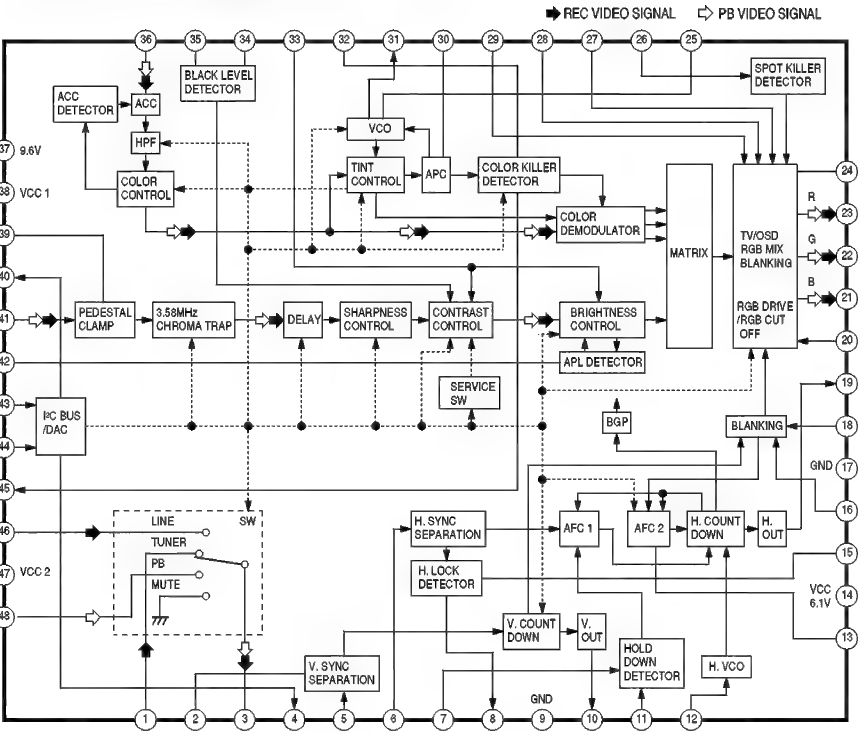
NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

**IMPORTANT SAFETY NOTICE:**  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |
| Not Used                              | PT   |

## IC5301 LUMINANCE/CHROMINANCE PROCESS IC-DETAIL BLOCK DIAGRAM



## LINK TO VOLTAGE CHART


### LINK TO SIGNAL WAVEFORM

LSJB2083  
TV/VCR MAIN III SCHEMATIC DIAGRAM  
PV-C2063/PV-C2523-K

TV/VCR MAIN IV (POWER SUPPLY) SCHEMATIC DIAGRAM (J, K)

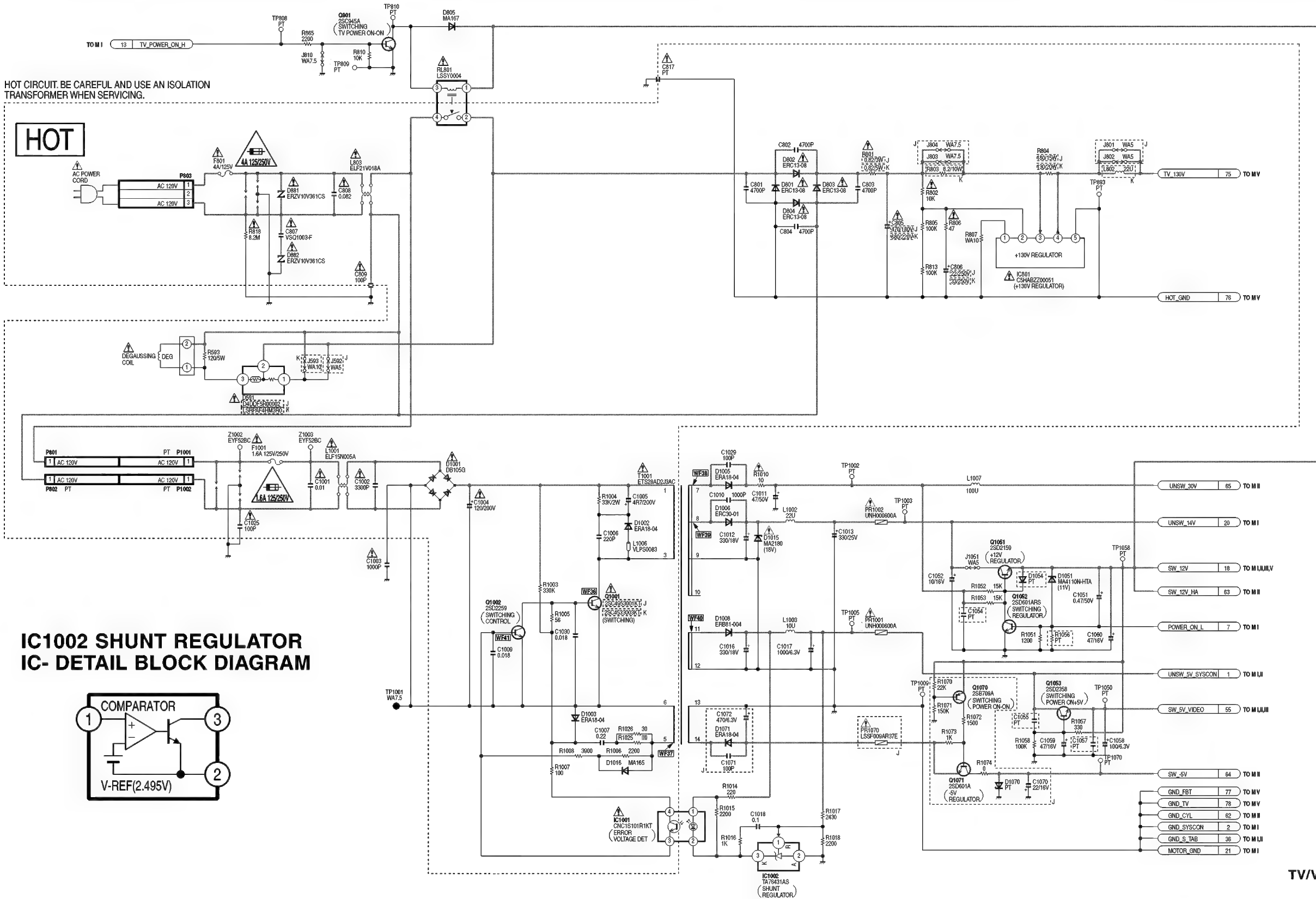
CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE 4A 125/250V FUSE.  
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES  
D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MÊME  
TYPE 4A 125/250V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE 1.6A 125/250V FUSE.  
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES  
D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MÊME  
TYPE 1.6A 125/250V

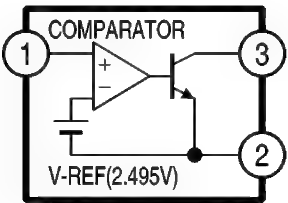
IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.  
NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |
| Not Used                              | PT   |



IC1002 SHUNT REGULATOR  
IC- DETAIL BLOCK DIAGRAM




[LINK TO VOLTAGE CHART](#)  
[LINK TO SIGNAL WAVEFORM](#)

TV/VCR MAIN V (TV) SCHEMATIC DIAGRAM (J, K)

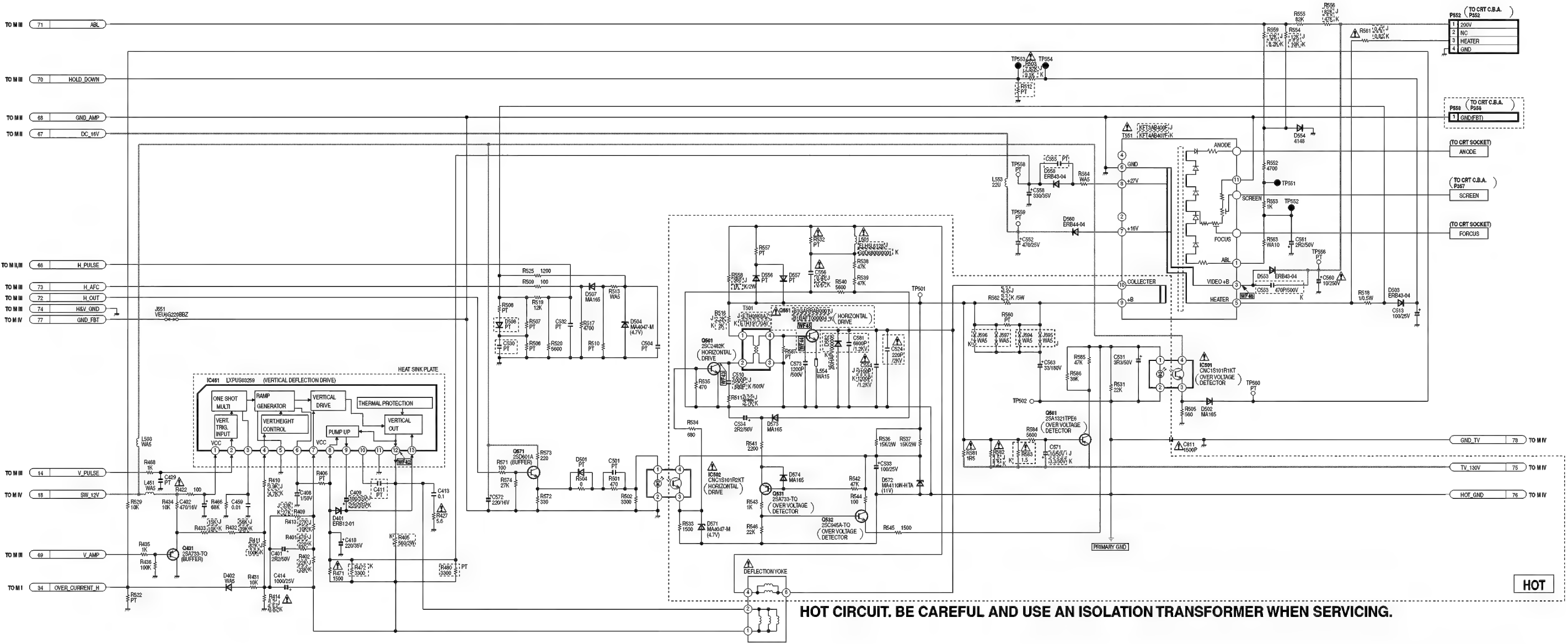
NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.

COMPARISON CHART  
OF MODELS & MARKS

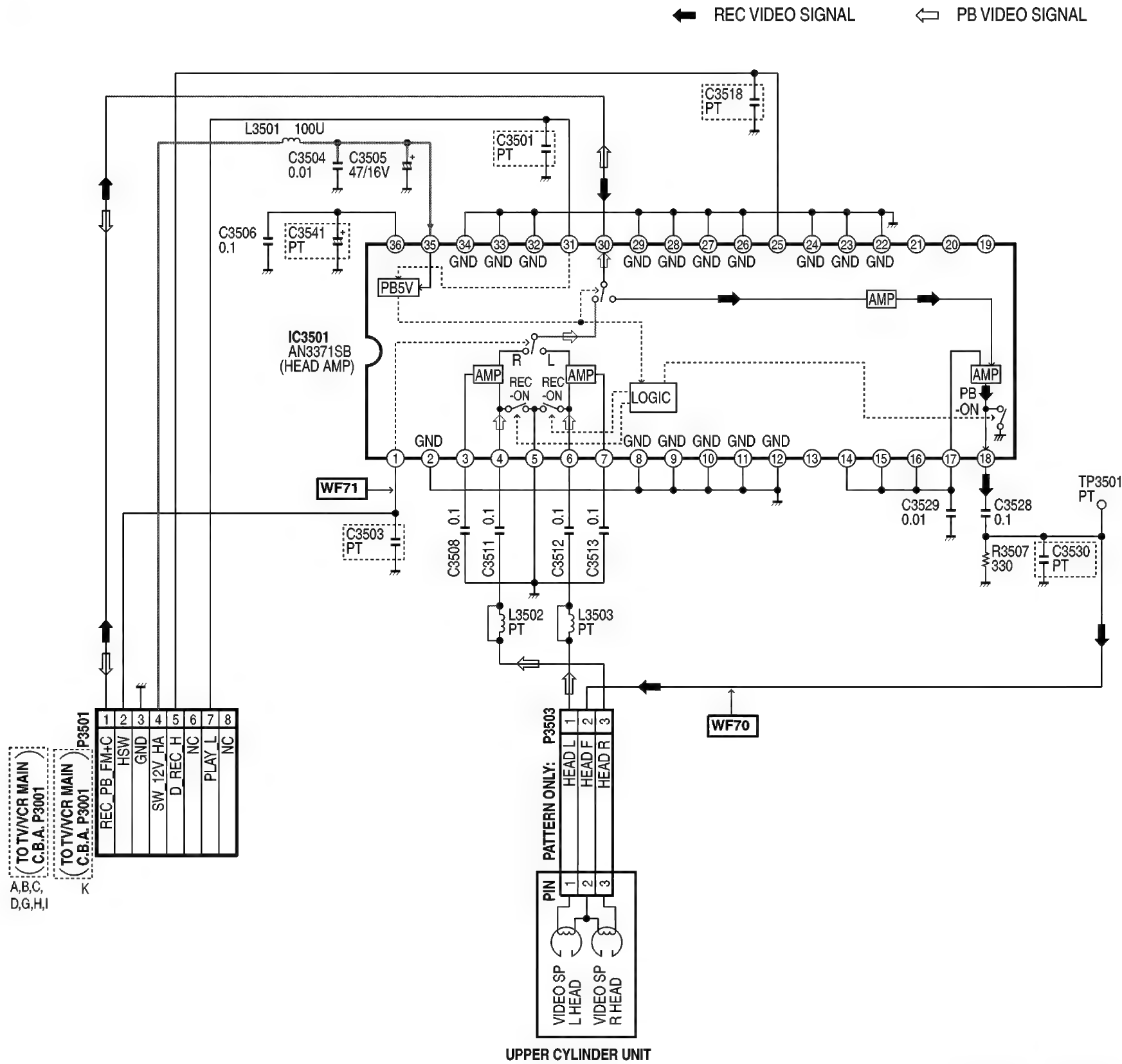
| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| PV-C2523-K  | K    |
| Not Used    | PT   |



[LINK TO VOLTAGE CHART](#)  
[LINK TO SIGNAL WAVEFORM](#)

8.4. HEAD AMP SCHEMATIC DIAGRAM (Models : PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2523-K)

HEAD AMP SCHEMATIC DIAGRAM (A, B, C, D, G, H, I, K)



NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

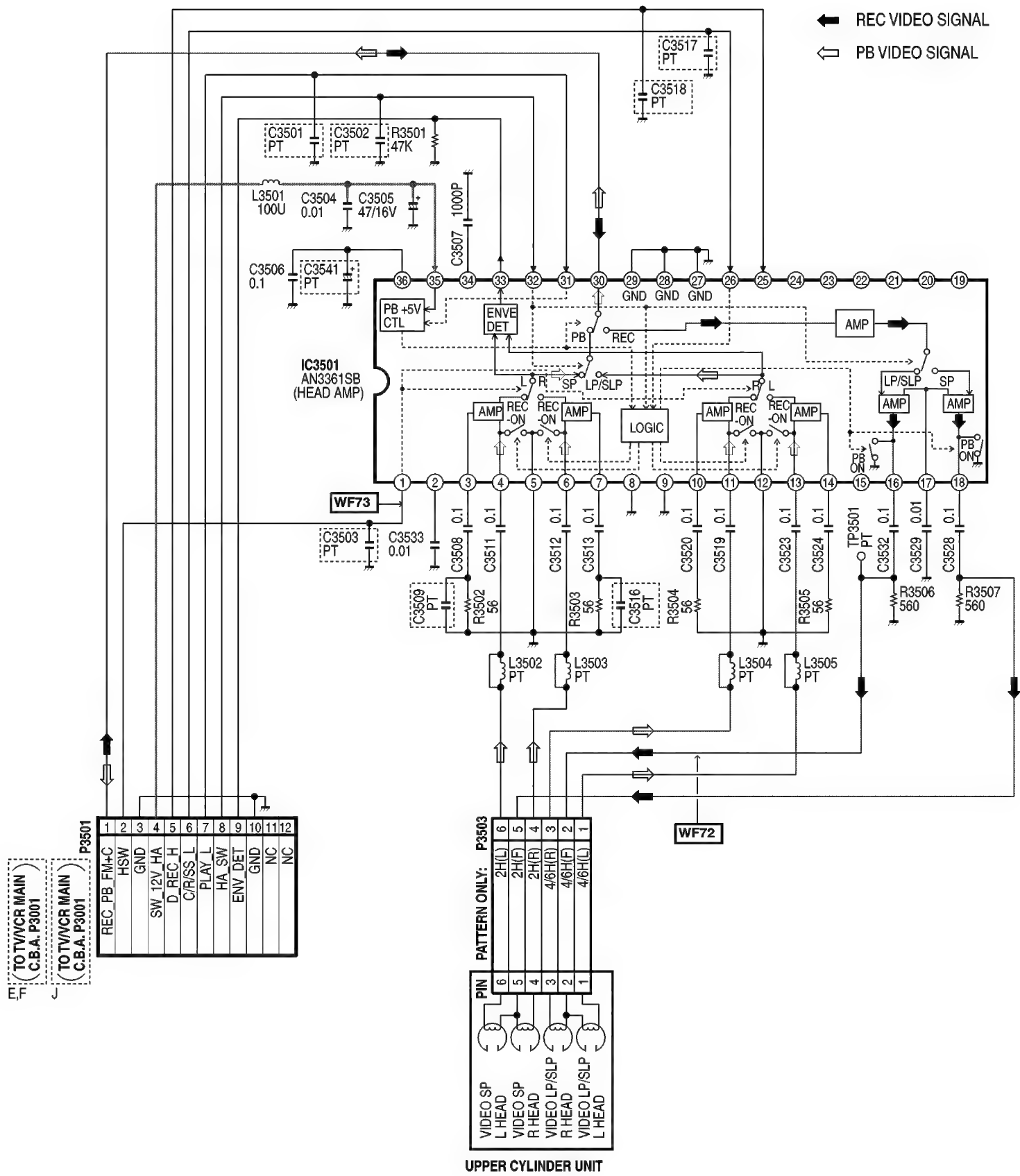
NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

| COMPARISON CHART OF MODELS & MARKS |      |
|------------------------------------|------|
| MODEL                              | MARK |
| PV-C1323                           | A    |
| PV-C1323-K                         | B    |
| PV-C1333W                          | C    |
| PV-C1333W-K                        | D    |
| PV-C1343                           | E    |
| PV-C1353W                          | F    |
| PV-C2023                           | G    |
| PV-C2023-K                         | H    |
| PV-C2033W                          | I    |
| PV-C2063                           | J    |
| PV-C2523-K                         | K    |
| Not Used                           | PT   |

[LINK TO VOLTAGE CHART](#)  
[LINK TO SIGNAL WAVEFORM](#)

8.5. HEAD AMP SCHEMATIC DIAGRAM (Models: PV-C1343/PV-C1353W/PV-C2063)

HEAD AMP SCHEMATIC DIAGRAM (E, F, J)



NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.


| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |
| Not Used                              | PT   |

[LINK TO VOLTAGE CHART](#)  
[LINK TO SIGNAL WAVEFORM](#)

LSJB2009  
PV-C1343/PV-C1353W/PV-C2063  
HEAD AMP SCHEMATIC DIAGRAM

8.6. CRT SCHEMATIC DIAGRAM (Models: PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343/PV-C1353W)

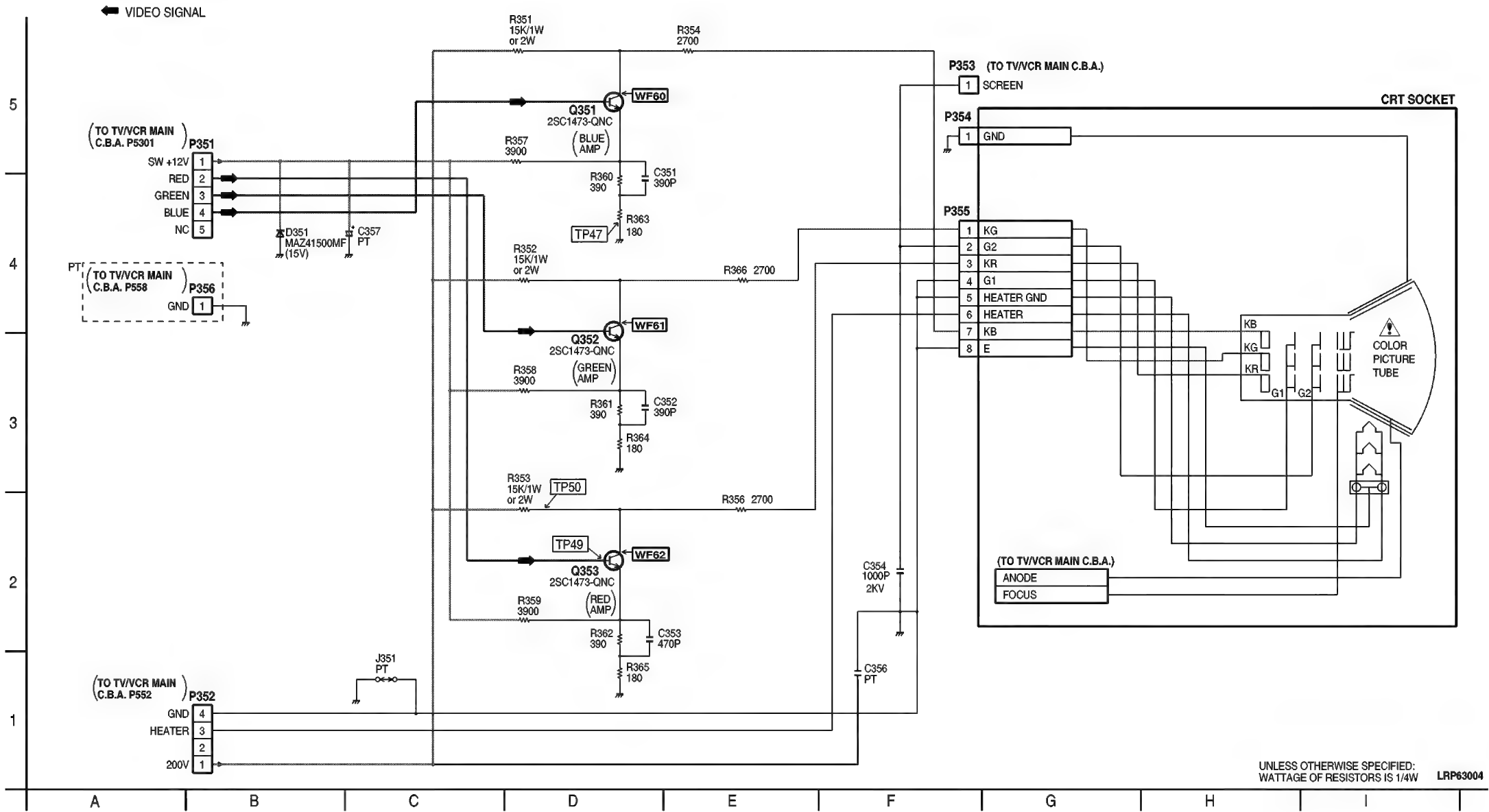
CRT SCHEMATIC DIAGRAM (A, B, C, D, E, F)

IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.


NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |
| Not Used                              | PT   |



8.7. CRT SCHEMATIC DIAGRAM (Models: PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K)

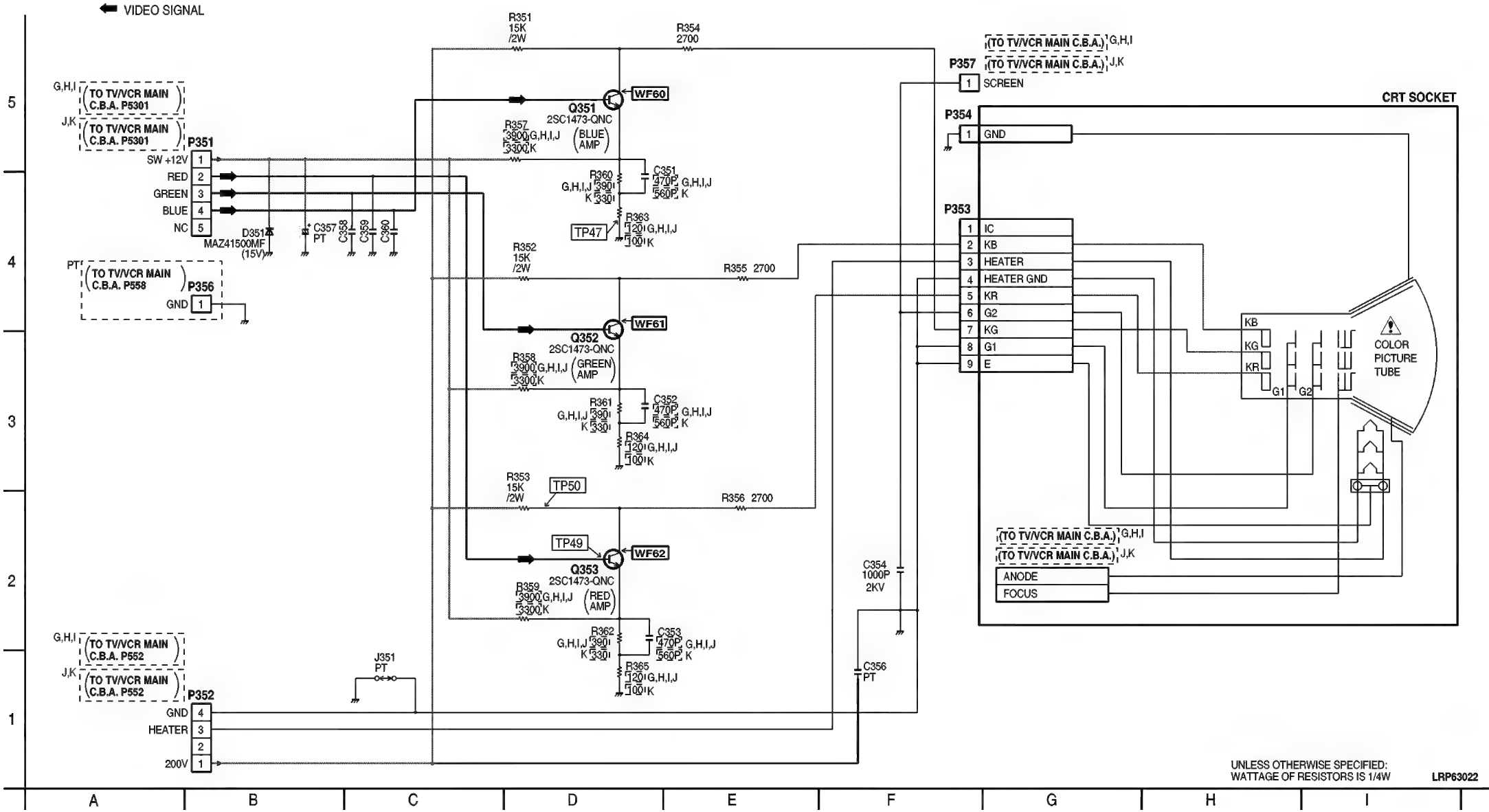
CRT SCHEMATIC DIAGRAM (G, H, I, J, K)

IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: For placing a purchase order of the parts,  
be sure to use the part number listed in the parts list.  
Do not use the part number on this diagram.

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |
| Not Used                              | PT   |



UNLESS OTHERWISE SPECIFIED:  
WATTAGE OF RESISTORS IS 1/4W LRP63022

[LINK TO VOLTAGE CHART](#)  
[LINK TO SIGNAL WAVEFORM](#)

PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K  
CRT SCHEMATIC DIAGRAM



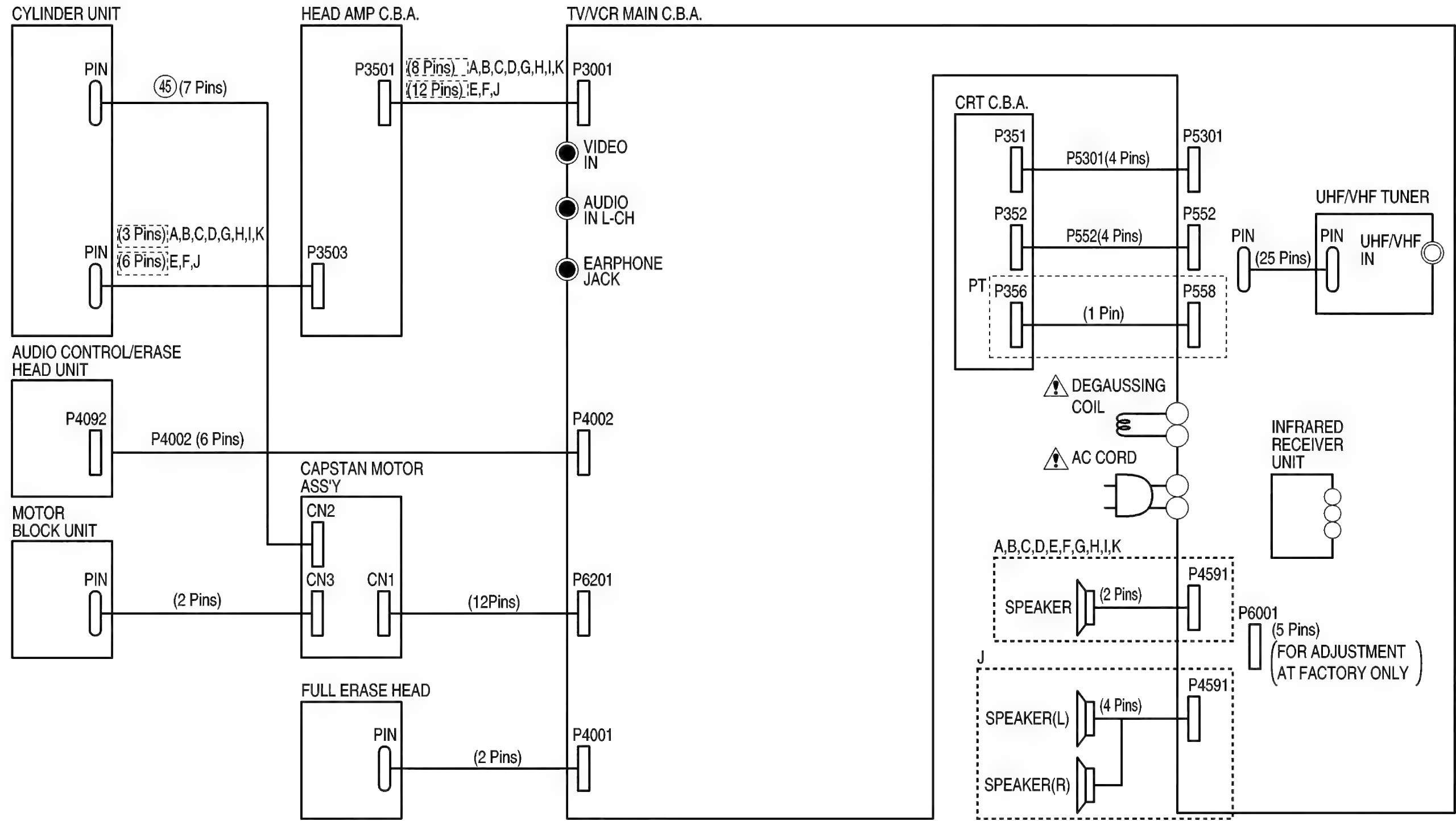
8.8. INTERCONNECTION SCHEMATIC DIAGRAM

INTERCONNECTION SCHEMATIC DIAGRAM

IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |
| Not Used                              | PT   |



INTERCONNECTION SCHEMATIC DIAGRAM  
PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343  
/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K

8.9. VOLTAGE CHART

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

TV/VCR MAIN C.B.A. (POWER SUPPLY/VIDEO/AUDIO SECTION)

| MODE<br>PIN NO. | STOP  | MODE<br>PIN NO. | STOP | MODE<br>PIN NO. | STOP | MODE<br>PIN NO. | STOP | MODE<br>PIN NO. | STOP | MODE<br>PIN NO. | STOP  | MODE<br>PIN NO. | STOP | MODE<br>PIN NO. | STOP  | MODE<br>PIN NO. | STOP |
|-----------------|-------|-----------------|------|-----------------|------|-----------------|------|-----------------|------|-----------------|-------|-----------------|------|-----------------|-------|-----------------|------|
| IC451           |       | 16              | 3.1  | 71              | 2.6  | 10              | 4.0  | 16              | ---  | B               | 11.4  | C               | 5.0  | TP501           | 130.6 | TP5501          | 0.7  |
| 1               | 11.4  | 17              | 2.3  | 72              | 2.6  | 11              | 5.2  | 17              | 0.5  | Q532            |       | B               | 2.5  | TP502           | 0     | TP5502          | 0.1  |
| 2               | 4.0   | 18              | ---  | 73              | 2.6  | 12              | 2.4  | 18              | 0.5  | E               | 0     | Q3301           |      | TP551           | -5.2  | TP5503          | 2.1  |
| 3               | 5.7   | 19              | 2.6  | 74              | 0    | 13              | 4.2  | 19              | 5.0  | C               | 11.9  | E               | 0    | TP552           | -5.9  | TP5504          | -0.1 |
| 4               | 5.8   | 20              | 3.1  | 75              | 0    | 14              | 6.2  | 20              | ---  | B               | 0     | C               | 4.3  | TP553           | 5.3   | TP5505          | 0    |
| 5               | 0     | 21              | 5.0  | 76              | 3.2  | 15              | 4.4  | 21              | 4.2  | Q551            |       | B               | -0.3 | TP554           | 19.5  | TP5506          | 5.3  |
| 6               | 5.4   | 22              | 2.0  | 77              | 0    | 16              | 0.7  | 22              | 1.3  | E               | 0     | Q4001           |      | TP556           | 200.0 |                 |      |
| 7               | 5.8   | 23              | 2.6  | 78              | 2.2  | 17              | 0    | 23              | 1.3  | C               | ---   | E               | 5.0  | TP558           | 24.2  |                 |      |
| 8               | 23.8  | 24              | 2.3  | 79              | 3.0  | 18              | 0.3  | 24              | 5.0  | B               | 0     | C               | 5.1  | TP559           | 16.0  |                 |      |
| 9               | 1.4   | 25              | 2.0  | 80              | 2.2  | 19              | 2.1  | 25              | 0    | Q571            |       | B               | 4.5  | TP806           | 120.0 |                 |      |
| 10              | 1.6   | 26              | 2.5  | 81              | 2.6  | 20              | 0    | 26              | ---  | E               | 1.5   | Q4002           |      | TP807           | 120.0 |                 |      |
| 11              | 0     | 27              | 2.0  | 82              | 2.8  | 21              | 3.6  | 27              | 0.1  | C               | 10.7  | E               | 0    | TP808           | 3.5   |                 |      |
| 12              | 12.6  | 28              | 0    | 83              | 2.6  | 22              | 3.4  | 28              | 0.5  | B               | 2.1   | C               | 0    | TP809           | 0     |                 |      |
| 13              | 24.2  | 29              | 1.9  | 84              | 3.8  | 23              | 3.6  | 29              | 4.2  | Q581            |       | B               | 0.8  | TP810           | 12.0  |                 |      |
| IC501           |       | 30              | 1.8  | IC3201          |      | 24              | 9.1  | 30              | 4.2  | E               | 130.0 | Q4003           |      | TP891           | 130.0 |                 |      |
| 1               | 0     | 31              | 2.0  | 1               | 2.8  | 25              | 3.8  | 31              | ---  | C               | 0     | E               | 0    | TP892           | 120.0 |                 |      |
| 2               | 0     | 32              | 2.4  | 2               | 5.0  | 26              | 9.0  | 32              | 2.6  | B               | 130.5 | C               | 0    | TP893           | 0     |                 |      |
| 3               | 0     | 33              | 2.0  | 3               | 0    | 27              | 0    | IC9201 (J)      |      | Q801            |       | B               | 0.8  | TP1001          | 0     |                 |      |
| 4               | 12.0  | 34              | 2.8  | 4               | 2.9  | 28              | 0    | 1               | 3.1  | E               | 0     | Q4101           |      | TP1002          | 30.0  |                 |      |
| IC502           |       | 35              | ---  | 5               | 3.0  | 29              | 0    | 2               | 3.8  | C               | 12.0  | E               | 0    | TP1003          | 14.0  |                 |      |
| 1               | 0     | 36              | 2.5  | 6               | -2.6 | 30              | 5.8  | 3               | 5.2  | B               | 0.8   | C               | 0.2  | TP1005          | 5.0   |                 |      |
| 2               | 0.5   | 37              | 0.1  | 7               | 2.2  | 31              | 6.2  | 4               | 4.4  | Q1001           |       | B               | 0.2  | TP1009          | 0     |                 |      |
| 3               | 2.1   | 38              | 4.1  | 8               | 2.9  | 32              | 3.6  | 5               | 0    | E               | 0     | Q4171           |      | TP1050          | 5.0   |                 |      |
| 4               | 11.8  | 39              | 2.3  | IC4501          |      | 33              | 6.6  | 6               | 5.2  | C               | 176.3 | E               | 0.1  | TP1058          | 12.0  |                 |      |
| IC801           |       | 40              | 3.5  | 1               | ---  | 34              | 8.1  | 7               | 4.5  | B               | 0.3   | C               | 0    | TP3001          | 1.7   |                 |      |
| 1               | 0     | 41              | 2.8  | 2               | 0    | 35              | 5.2  | 8               | 2.8  | Q1002           |       | B               | 0.1  | TP3002          | 2.5   |                 |      |
| 2               | 131.8 | 42              | 0    | 3               | 6.4  | 36              | 4.3  | 9               | 2.8  | E               | 0     | Q5301           |      | TP3003          | 3.4   |                 |      |
| 3               | 170.3 | 43              | 3.4  | 4               | 0    | 37              | 9.7  | IC9301 (J)      |      | C               | 0.3   | E               | 3.2  | TP3004          | 2.0   |                 |      |
| 4               | 130.3 | 44              | 2.6  | 5               | 1.9  | 38              | 9.0  | 1               | 0    | B               | 0.7   | C               | 9.1  | TP3005          | 0.1   |                 |      |
| 5               | 0     | 45              | 2.6  | 6               | 5.9  | 39              | 2.1  | 2               | 0    | Q1051           |       | B               | 3.8  | TP3006          | 2.5   |                 |      |
| IC1001          |       | 46              | 2.6  | 7               | 5.9  | 40              | 2.8  | 3               | 0    | E               | 12.0  | Q5901           |      | TP3007          | 2.4   |                 |      |
| 1               | 5.3   | 47              | 5.0  | 8               | 0    | 41              | 2.4  | 4               | 0    | C               | 14.0  | E               | 9.1  | TP3008          | 2.4   |                 |      |
| 2               | 4.4   | 48              | ---  | 9               | 6.0  | 42              | 0    | 5               | 0    | B               | 11.3  | C               | 12.0 | TP3009          | 0     |                 |      |
| 3               | 0.7   | 49              | 0.1  | 10              | 12.6 | 43              | 5.2  | 6               | 0    | Q1052           |       | B               | 9.7  | TP3010          | 3.0   |                 |      |
| 4               | 2.0   | 50              | ---  | IC4511 (J)      |      | 44              | 5.3  | 7               | -5.7 | E               | 0     | Q9001 (J)       |      | TP3011          | 2.7   |                 |      |
| IC1002          |       | 51              | 5.0  | 1               | ---  | 45              | 0.4  | 8               | 0    | C               | 11.3  | E               | 0    | TP3212          | 3.0   |                 |      |
| 1               | 2.5   | 52              | 2.5  | 2               | 0    | 46              | 2.7  | 9               | 0    | B               | 0.6   | C               | 5.2  | TP4002          | 0     |                 |      |
| 2               | 0     | 53              | 2.5  | 3               | 6.4  | 47              | 5.0  | 10              | 0    | Q1053           |       | B               | 0    | TP4003          | 0     |                 |      |
| 3               | 4.1   | 54              | 1.8  | 4               | 0    | 48              | 0.3  | 11              | 0    | E               | 5.0   | Q9002 (J)       |      | TP4501          | 0     |                 |      |
| IC3001          |       | 55              | 2.1  | 5               | 1.9  | IC9001 (J)      |      | 12              | 0    | C               | 5.0   | E               | 0.2  | TP4505          | -0.7  |                 |      |
| 1               | 5.0   | 56              | 4.5  | 6               | 5.9  | 1               | ---  | 13              | 0    | B               | 6.0   | C               | 0    | TP4507          | 16.0  |                 |      |
| 2               | 3.4   | 57              | 2.6  | 7               | 5.9  | 2               | 1.3  | 14              | 0    | Q1070(J,K)      |       | B               | 0    | TP4591          | -0.7  |                 |      |
| 3               | ---   | 58              | 2.7  | 8               | 0    | 3               | 2.5  | 15              | 0    | E               | 11.9  | Q9201 (J)       |      | TP4706          | 0     |                 |      |
| 4               | 5.0   | 59              | 2.6  | 9               | 6.0  | 4               | 1.3  | 16              | 5.2  | C               | 11.9  | E               | 0    | TP5301          | 3.5   |                 |      |
| 5               | 2.7   | 60              | 2.6  | 10              | 12.6 | 5               | 0.5  | Q431            |      | B               | 11.3  | C               | 2.8  | TP5302          | 3.5   |                 |      |
| 6               | ---   | 61              | 2.6  | IC5301          |      | 6               | 0.5  | E               | 3.3  | Q1071(J,K)      |       | B               | 8.7  | TP5303          | 3.5   |                 |      |
| 7               | 5.2   | 62              | 0    | 1               | 2.7  | 7               | ---  | C               | 0    | E               | -28.8 | Q9202 (J)       |      | TP5304          | 12.0  |                 |      |
| 8               | 5.3   | 63              | 0    | 2               | 3.0  | 8               | ---  | B               | 2.7  | C               | -28.6 | E               | 0    | TP5305          | 3.2   |                 |      |
| 9               | 2.2   | 64              | ---  | 3               | 3.8  | 9               | 0.1  | Q501            |      | B               | -28.1 | C               | 2.8  | TP5307          | 0     |                 |      |
| 10              | 2.8   | 65              | 2.6  | 4               | ---  | 10              | 5.0  | E               | 0    | Q3001           |       | B               | 8.7  | TP5308          | 1.5   |                 |      |
| 11              | 0.4   | 66              | 2.7  | 5               | 2.1  | 11              | 0.1  | C               | 76.0 | E               | 1.7   |                 |      | TP5309          | 1.7   |                 |      |
| 12              | 2.8   | 67              | 2.7  | 6               | 2.2  | 12              | ---  | B               | 0.5  | C               | 0     |                 |      | TP5310          | 5.7   |                 |      |
| 13              | 0     | 68              | 5.0  | 7               | 6.1  | 13              | 1.3  | Q531            |      | B               | 1.0   |                 |      | TP5311          | 3.5   |                 |      |
| 14              | 0.4   | 69              | 2.7  | 8               | 0.4  | 14              | 1.3  | E               | 11.6 | Q3002           |       |                 |      | TP5401          | 4.0   |                 |      |
| 15              | 1.7   | 70              | 2.2  | 9               | 0    | 15              | 2.6  | C               | 0    | E               | 1.8   |                 |      | TP5402          | 2.8   |                 |      |

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |

VOLTAGE CHART  
PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343  
/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K

**NOTE:**  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

## TV/VCR MAIN C.B.A. (SYSTEM CONTROL/SERVO SECTION)

| MODE<br>PIN NO. | REC | PLAY | MODE<br>PIN NO. | REC | PLAY | MODE<br>PIN NO. | REC  | PLAY | MODE<br>PIN NO. | REC | PLAY |
|-----------------|-----|------|-----------------|-----|------|-----------------|------|------|-----------------|-----|------|
| IC6001          |     |      | 55              | 3.4 | 0.6  | 4               | 5.2  | 5.1  | TP6007          | 5.2 | 5.2  |
| 1               | 5.3 | 5.0  | 56              | 3.7 | 0.5  | IC6004          |      |      | TP6008          | 0   | 0    |
| 2               | 5.2 | 5.2  | 57              | 4.9 | 4.8  | 1               | 0    | 0    | TP6009          | 5.0 | 5.0  |
| 3               | --- | ---  | 58              | 5.1 | 0    | 2               | 0    | 0    | TP6013          | 0   | 2.6  |
| 4               | --- | ---  | 59              | 0   | 0    | 3               | 0    | 0    | TP6021          | 0   | 0    |
| 5               | 5.2 | 5.2  | 60              | 2.6 | 2.5  | 4               | 0    | 0    | TP6022          | 5.1 | 5.1  |
| 6               | 0.1 | 5.2  | 61              | 0   | 0    | 5               | 5.3  | 5.3  | TP6023          | 0   | 0    |
| 7               | 0.1 | 0    | 62              | 0   | 0    | 6               | 5.2  | 5.2  | TP6099          | 5.1 | 5.1  |
| 8               | 0.3 | 5.2  | 63              | 0   | 0    | 7               | 0    | 0    | TP6101          | 5.2 | 5.2  |
| 9               | 1.5 | 1.3  | 64              | 0.2 | 0.1  | 8               | 5.0  | 5.0  | TP6103          | 5.1 | 5.1  |
| 10              | 5.2 | 5.2  | 65              | 1.4 | 1.4  | IC6005          |      |      | TP6104          | 5.3 | 5.2  |
| 11              | 0.1 | 0    | 66              | 4.8 | 4.8  | 1               | 5.2  | 5.2  | TP6105          | 0.1 | 0    |
| 12              | 0.1 | 0.1  | 67              | 2.4 | 2.4  | 2               | 5.0  | 5.0  | TP6106          | 5.0 | 5.0  |
| 13              | 0.1 | 0    | 68              | 3.7 | 0.4  | 3               | 0    | 0    | TP6107          | 0   | 0    |
| 14              | 5.1 | 5.1  | 69              | 2.6 | 2.6  | 4               | 0    | 0    | TP6108          | 3.9 | 3.9  |
| 15              | 0.3 | 0.1  | 70              | 2.6 | 2.6  | 5               | 5.0  | 5.0  | TP6109          | 5.1 | 5.1  |
| 16              | 5.1 | 5.1  | 71              | 0   | 0    | 6               | 0    | 0    | TP6111          | 0   | 0    |
| 17              | 5.3 | 5.3  | 72              | 2.6 | 2.6  |                 |      |      | TP6201          | 2.7 | 2.7  |
| 18              | 5.2 | 5.2  | 73              | 5.2 | 5.2  | Q6001           |      |      | TP6202          | 2.6 | 2.6  |
| 19              | 0.5 | 1.6  | 74              | 3.0 | ---  | E               | 12.0 | ---  | TP6203          | 2.4 | 2.4  |
| 20              | 0.3 | 0    | 75              | 2.2 | 0.2  | C               | 12.0 | 0.3  | TP6204          | 1.4 | 1.4  |
| 21              | 5.1 | 5.1  | 76              | 2.6 | 2.6  | B               | 11.3 | 11.7 | TP6205          | 2.6 | 2.9  |
| 22              | 0.1 | 0.3  | 77              | 0.2 | 0.2  | Q6002           |      |      | TP6206          | 3.0 | 2.6  |
| 23              | 2.6 | 2.6  | 78              | 2.4 | 2.4  | E               | 4.5  | 0    | TP6207          | 2.6 | 2.6  |
| 24              | 0.1 | 0    | 79              | 0.2 | 0    | C               | 11.3 | 12.1 | TP6208          | 2.7 | 2.7  |
| 25              | 5.1 | 5.1  | 80              | 4.9 | 0.7  | B               | 5.2  | 0    | TP6209          | 2.1 | 2.7  |
| 26              | 0.5 | 2.6  | 81              | 4.9 | 4.5  | Q6003           |      |      | TP6401          | 0   | 0.1  |
| 27              | 0   | 2.6  | 82              | 3.4 | 2.8  | E               | 0    | 0    |                 |     |      |
| 28              | 0.1 | 0.1  | 83              | 5.1 | 5.0  | C               | 0.2  | 0.2  |                 |     |      |
| 29              | 5.2 | 0    | 84              | 2.0 | 0.2  | B               | 0.8  | 0.8  |                 |     |      |
| 30              | 0.6 | 0.6  | 85              | 0.1 | 0.1  | Q6004           |      |      |                 |     |      |
| 31              | 0   | 0    | 86              | 5.2 | 0.3  | E               | 5.2  | 5.2  |                 |     |      |
| 32              | 1.9 | 1.9  | 87              | 5.2 | 5.2  | C               | 5.2  | 5.2  |                 |     |      |
| 33              | 2.7 | 2.7  | 88              | 5.2 | 0.7  | B               | 4.5  | 4.5  |                 |     |      |
| 34              | 2.6 | 2.6  | 89              | 5.2 | 0.7  | Q6005           |      |      |                 |     |      |
| 35              | 2.0 | 2.4  | 90              | 0.7 | 0.6  | E               | 5.3  | 5.3  |                 |     |      |
| 36              | 5.0 | 5.0  | 91              | 5.2 | 5.2  | C               | 5.2  | 5.2  |                 |     |      |
| 37              | 2.4 | 2.4  | 92              | 0.7 | 0.4  | B               | 4.4  | 4.4  |                 |     |      |
| 38              | 2.5 | 2.3  | 93              | 4.9 | 5.0  | Q6006           |      |      |                 |     |      |
| 39              | 0   | 0    | 94              | 5.1 | 0.3  | E               | 0    | 0    |                 |     |      |
| 40              | 0.3 | 0.3  | 95              | 0   | 0    | C               | 5.2  | 5.2  |                 |     |      |
| 41              | 0.1 | 0.1  | 96              | 5.0 | 4.9  | B               | 0    | 0    |                 |     |      |
| 42              | 1.0 | 0    | 97              | 0   | 0    | Q6009           |      |      |                 |     |      |
| 43              | 1.4 | 1.4  | 98              | 2.6 | 2.6  | E               | 0    | 0    |                 |     |      |
| 44              | 4.8 | 4.8  | 99              | 0.6 | 0.5  | C               | 5.2  | 5.2  |                 |     |      |
| 45              | 3.9 | 3.9  | 100             | 0.1 | 0.2  | Q6010           |      |      |                 |     |      |
| 46              | 4.3 | 4.2  | IC6002          |     |      | E               | 0    | 0    |                 |     |      |
| 47              | 1.8 | 2.1  | 1               | 1.2 | 1.2  | C               | 5.1  | 5.2  |                 |     |      |
| 48              | 0   | 1.9  | 2               | 0   | 0    |                 |      |      |                 |     |      |
| 49              | 2.0 | 2.1  | 3               | 0   | 0    | TP6001          | 5.2  | 5.0  |                 |     |      |
| 50              | 0.3 | 2.7  | 4               | --- | ---  | TP6002          | 5.2  | 5.2  |                 |     |      |
| 51              | 5.0 | 5.0  | IC6003          |     |      | TP6003          | 3.4  | 2.9  |                 |     |      |
| 52              | 2.6 | 2.6  | 1               | 2.4 | 2.4  | TP6004          | ---  | ---  |                 |     |      |
| 53              | 2.6 | 2.6  | 2               | 1.2 | ---  | TP6005          | 5.1  | 5.2  |                 |     |      |
| 54              | 0   | 0    | 3               | 0   | 0    | TP6006          | 0    | 0    |                 |     |      |

**VOLTAGE CHART**  
**PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343**  
**/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K**

**NOTE:**  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

HEAD AMP  
C.B.A.  
(A,B,C,D,G,H,I,K)

[illegible]

HEAD AMP  
C.B.A.  
(E,F,J)

[illegible]

CRT C.B.A.  
(A,B,C,D,E,F)

[illegible]

**CRT C.B.A.**  
**(G,H,I,J,K)**

[illegible]

## COMPARISON CHART OF MODELS & MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| PV-C2523-K  | K    |

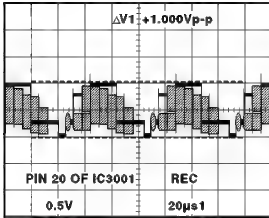
**VOLTAGE CHART**  
**PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343**  
**/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K**

8.10. SIGNAL WAVEFORMS

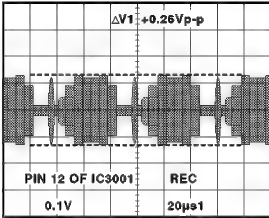
NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |

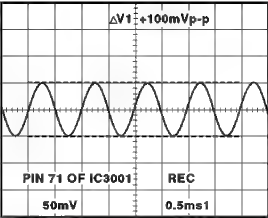
TV/VCR MAIN C.B.A.



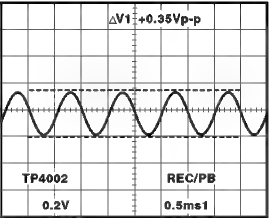
WF1



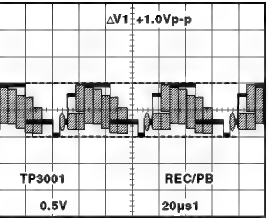
WF6



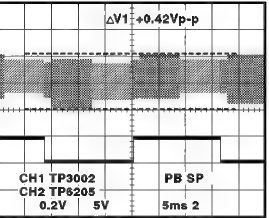
WF9



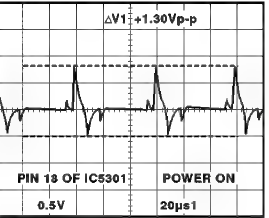
WF14



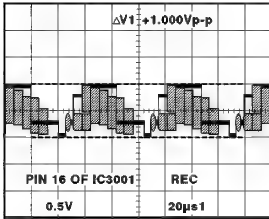
WF18



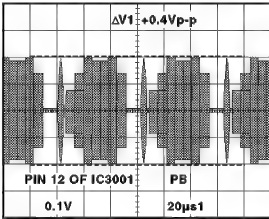
CH1 WF19  
CH2 WF32  
(E,F,J)



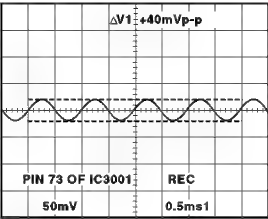
WF23



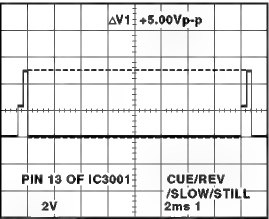
WF2



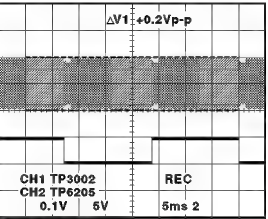
WF6



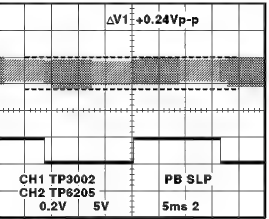
WF10



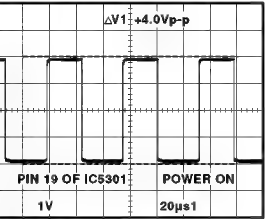
WF15



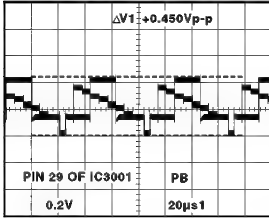
CH1 WF19  
CH2 WF32  
(A,B,C,D,G,H,I,K)



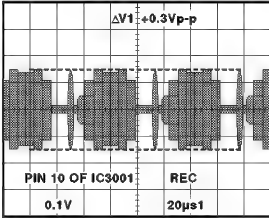
CH1 WF19  
CH2 WF32  
(E,F,J)



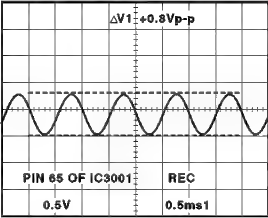
WF24



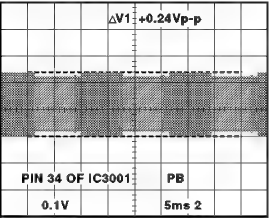
WF3



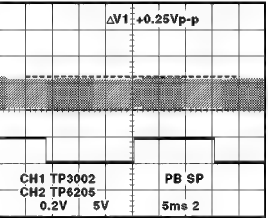
WF7



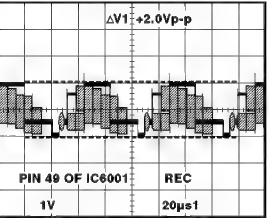
WF11



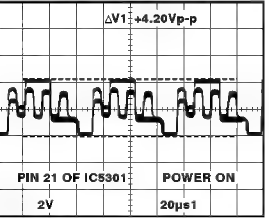
WF16



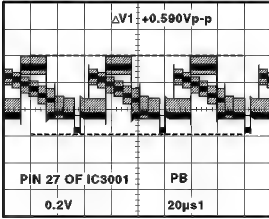
CH1 WF19  
CH2 WF32  
(A,B,C,D,G,H,I,K)



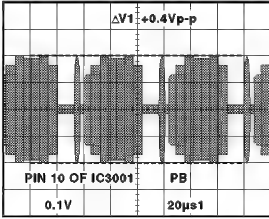
WF20



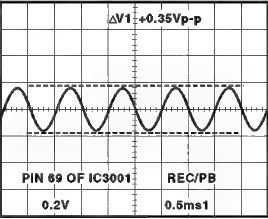
WF25



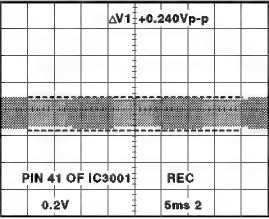
WF4



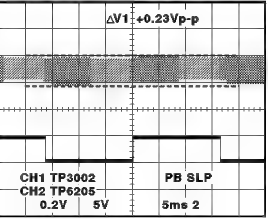
WF7



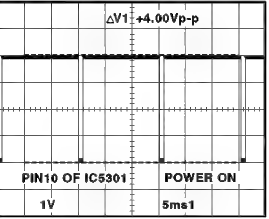
WF12



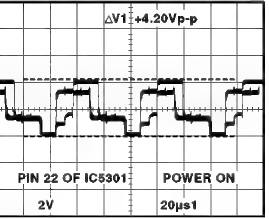
WF17



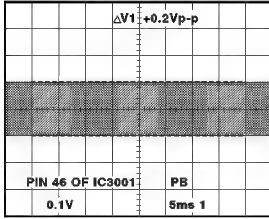
CH1 WF19  
CH2 WF32  
(A,B,C,D,G,H,I,K)



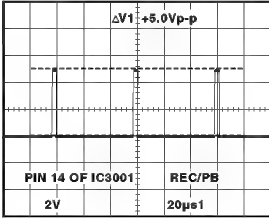
WF21



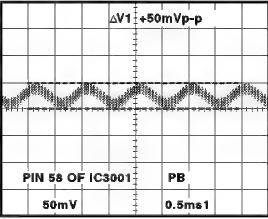
WF26



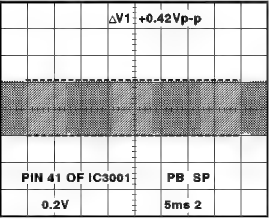
WF5



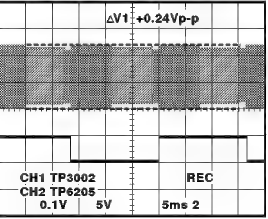
WF8



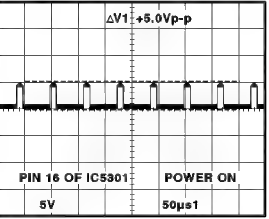
WF13



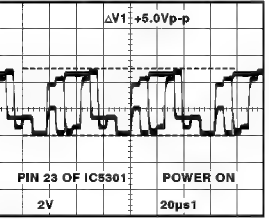
WF17



CH1 WF19  
CH2 WF32  
(E,F,J)



WF22



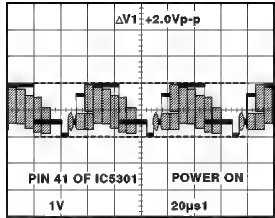
WF27

SIGNAL WAVEFORMS

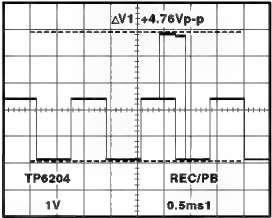
PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343  
/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

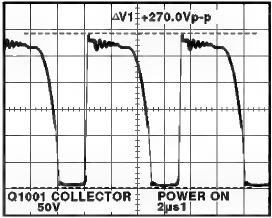
| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |



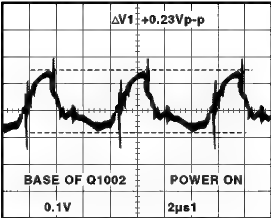
WF28



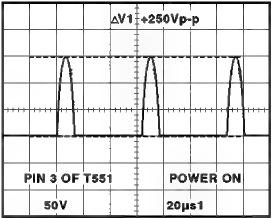
WF31



WF36

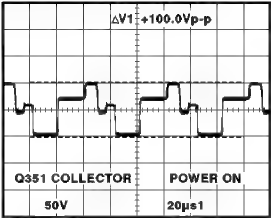


WF41



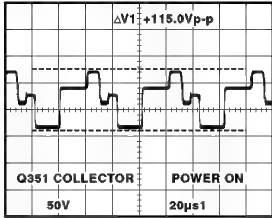
WF46

**CRT C.B.A.  
(A, B, C, D, E, F)**

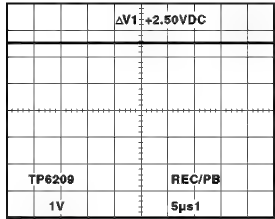


WF60

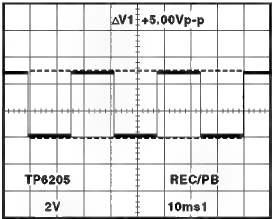
**CRT C.B.A.  
(G, H, I, J, K)**



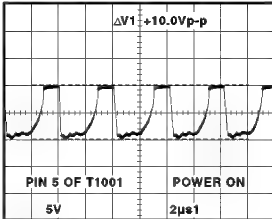
WF60



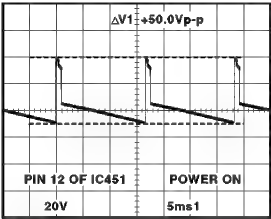
WF29



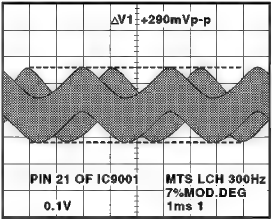
WF32



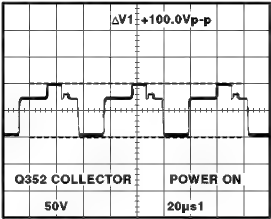
WF37



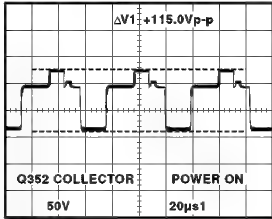
WF42



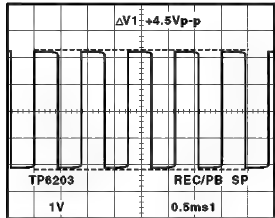
WF47  
(J)



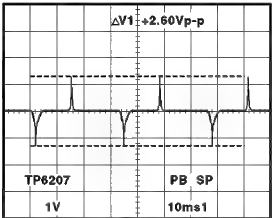
WF61



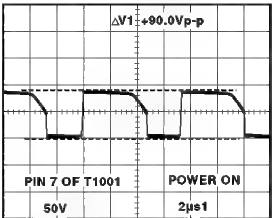
WF61



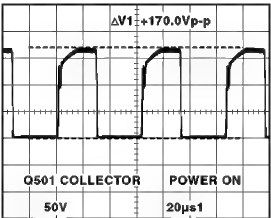
WF30



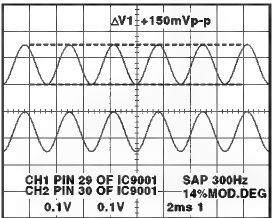
WF33



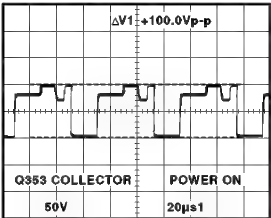
WF38



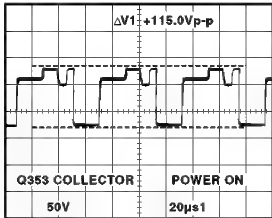
WF43



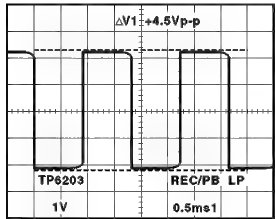
CH1 WF48  
CH2 WF49  
(J)



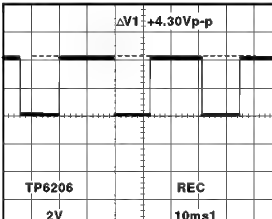
WF62



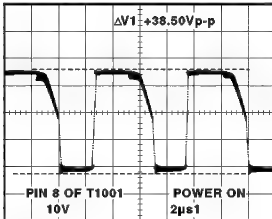
WF62



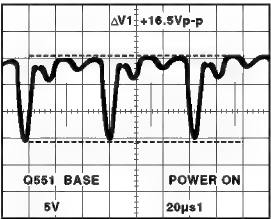
WF30



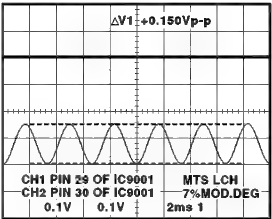
WF34



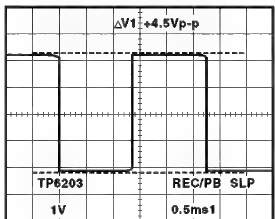
WF39



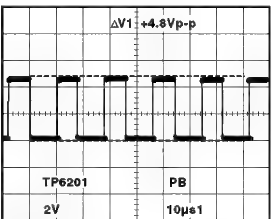
WF44



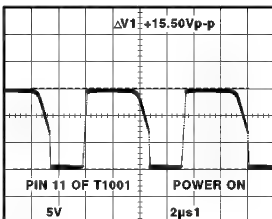
CH1 WF48  
CH2 WF49  
(J)



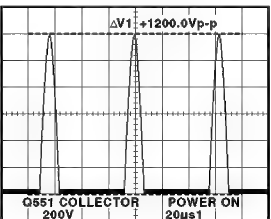
WF30



WF35



WF40

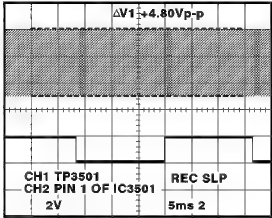


WF45

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

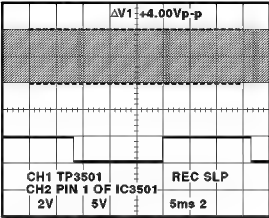
| COMPARISON CHART<br>OF MODELS & MARKS |      |
|---------------------------------------|------|
| MODEL                                 | MARK |
| PV-C1323                              | A    |
| PV-C1323-K                            | B    |
| PV-C1333W                             | C    |
| PV-C1333W-K                           | D    |
| PV-C1343                              | E    |
| PV-C1353W                             | F    |
| PV-C2023                              | G    |
| PV-C2023-K                            | H    |
| PV-C2033W                             | I    |
| PV-C2063                              | J    |
| PV-C2523-K                            | K    |

HEAD AMP C.B.A.  
(A, B, C, D, G, H, I, K)



CH1 WF70  
CH2 WF71

HEAD AMP C.B.A.  
(E, F, J)



CH1 WF72  
CH2 WF73

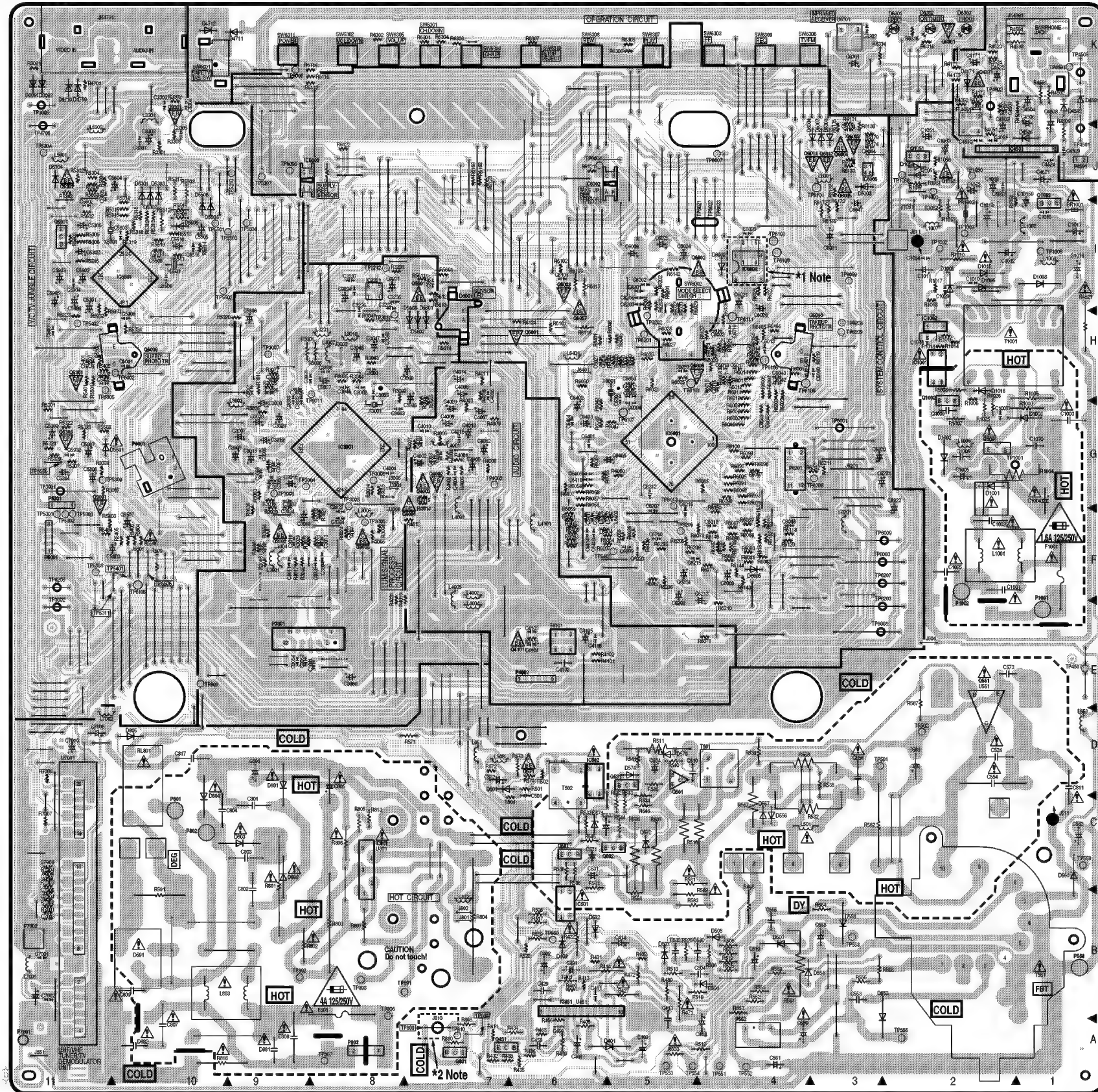




## 9 CIRCUIT BOARD LAYOUT

### 9.1. TV/VCR MAIN C.B.A. (Models: PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W)

TV/VCR MAIN C.B.A. LSEP2012T (A,B,C,D) / LSEP2012S (E,F) / LSEP2012C (G,H,I)



HOT CIRCUIT. BE CAREFUL AND USE AN ISOLATION TRANSFORMER WHEN SERVICING.


NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:  
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.  
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,  
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

NOTE:  
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE 4A 125/250V FUSE.  
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES  
D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MÊME  
TYPE 4A 125/250V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE 1.6A 125/250V FUSE.  
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES  
D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MÊME  
TYPE 1.6A 125/250V

IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.

#### \*1 Note

There are 2 types of EEPROM IC (IC6004) used  
on the TV/VCR Main C.B.A. (DIP TYPE and SOP TYPE)  
However, these are same reliability.

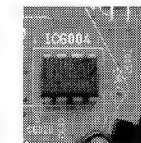


Fig. 1

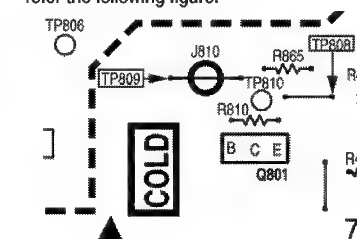


Fig. 2

Be sure to install DIP type IC from the component  
side as shown in Fig. 1.  
Be sure to install SOP type IC from the foil side as  
shown in Fig. 2.

#### \*2 Note

When the TV/VCR MAIN CBA is replaced,  
the Jumper wire (J801 or J810) of the new  
TV/VCR MAIN CBA must be cut before use.  
If the Jumper wire isn't cut, the power does  
not turned on to the TV circuit.  
As for the location of the Jumper wire, please  
refer the following figure.



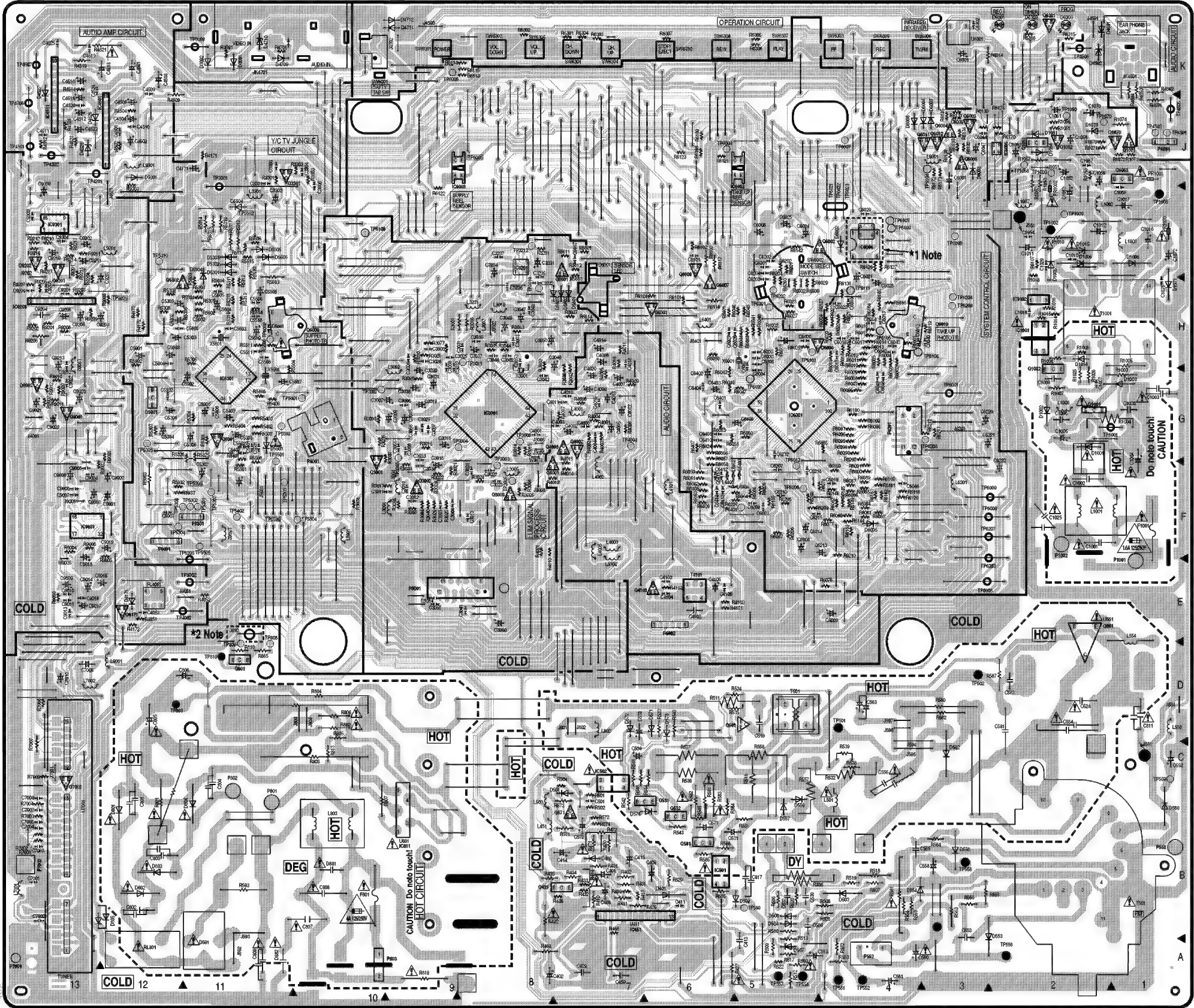
TV/VCR MAIN C.B.A. LSEP2012T/LSEP2012S/LSEP2012C  
PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343  
/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| PV-C2523-K  | K    |




9.2. TV/VCR MAIN C.B.A. (Models: PV-C2063/PV-C2523-K)

TV/VCR MAIN C.B.A. LSEP2083A (J) / LSEP2083D (K)



HOT CIRCUIT. BE CAREFUL AND USE AN ISOLATION TRANSFORMER WHEN SERVICING.

NOTE:  
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,  
REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE  
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.  
WHEN REPLACING ANY OF THESE COMPONENTS,  
USE ONLY THE SPECIFIED PARTS.

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| PV-C2523-K  | K    |

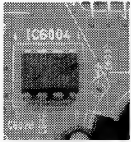
NOTE:  
CIRCUIT BOARD LAYOUT SHOWS COMPONENTS INSTALLED FOR VARIOUS MODELS.  
FOR PROPER PARTS CONTENT FOR THE MODEL YOU ARE SERVICING,  
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST.

NOTE:  
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.

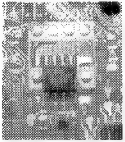
CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE 4A 125/250V FUSE.  
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES  
D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MÊME  
TYPE 4A 125/250V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,  
REPLACE ONLY WITH THE SAME TYPE 1.6A 125/250V FUSE.  
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES  
D'INCENDIE N'UTILISER QUE DES FUSIBLE DE MÊME  
TYPE 1.6A 125/250V

**\*1 Note**  
There are 2 types of EEPROM IC (IC6004) used  
on the TV/VCR Main C.B.A. (DIP TYPE and SOP TYPE)  
However, these are same reliability.

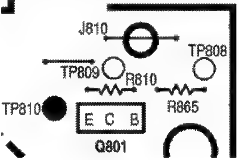


OR



Be sure to install DIP type IC from the component  
side as shown in Fig. 1.  
Be sure to install SOP type IC from the foil side as  
shown in Fig. 2.

**\*2 Note**  
When the TV/VCR MAIN CBA is replaced,  
the Jumper wire(J801 or J810) of the new  
TV/VCR MAIN CBA must be cut before use.  
If the Jumper wire isn't cut, the power does  
not turned on to the TV circuit.  
As for the location of the Jumper wire, please  
refer the following figure.



TV/VCR MAIN C.B.A. LSEP2083A/LSEP2083D  
PV-C2063/PV-C2523-K

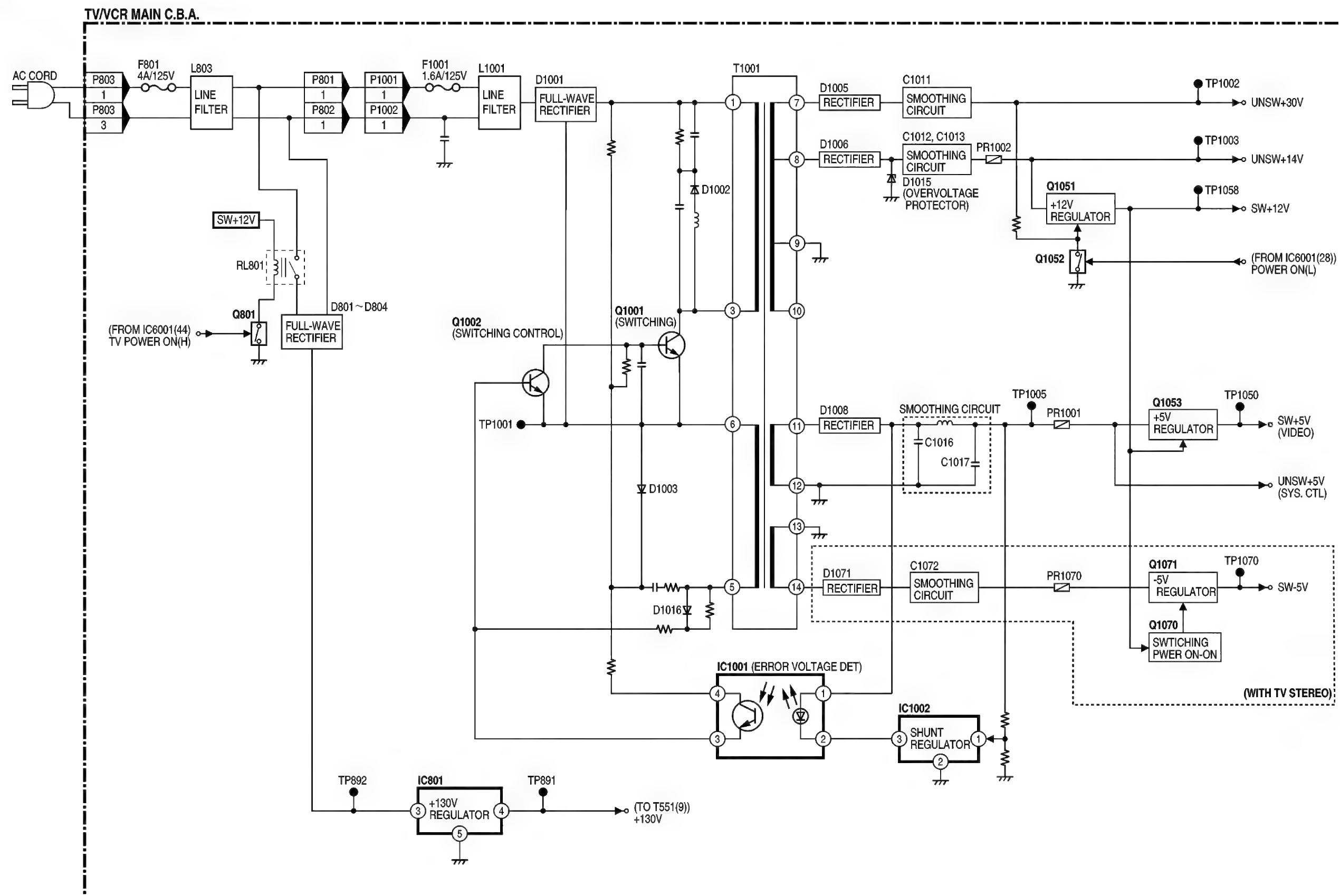






## 10 BLOCK DIAGRAMS

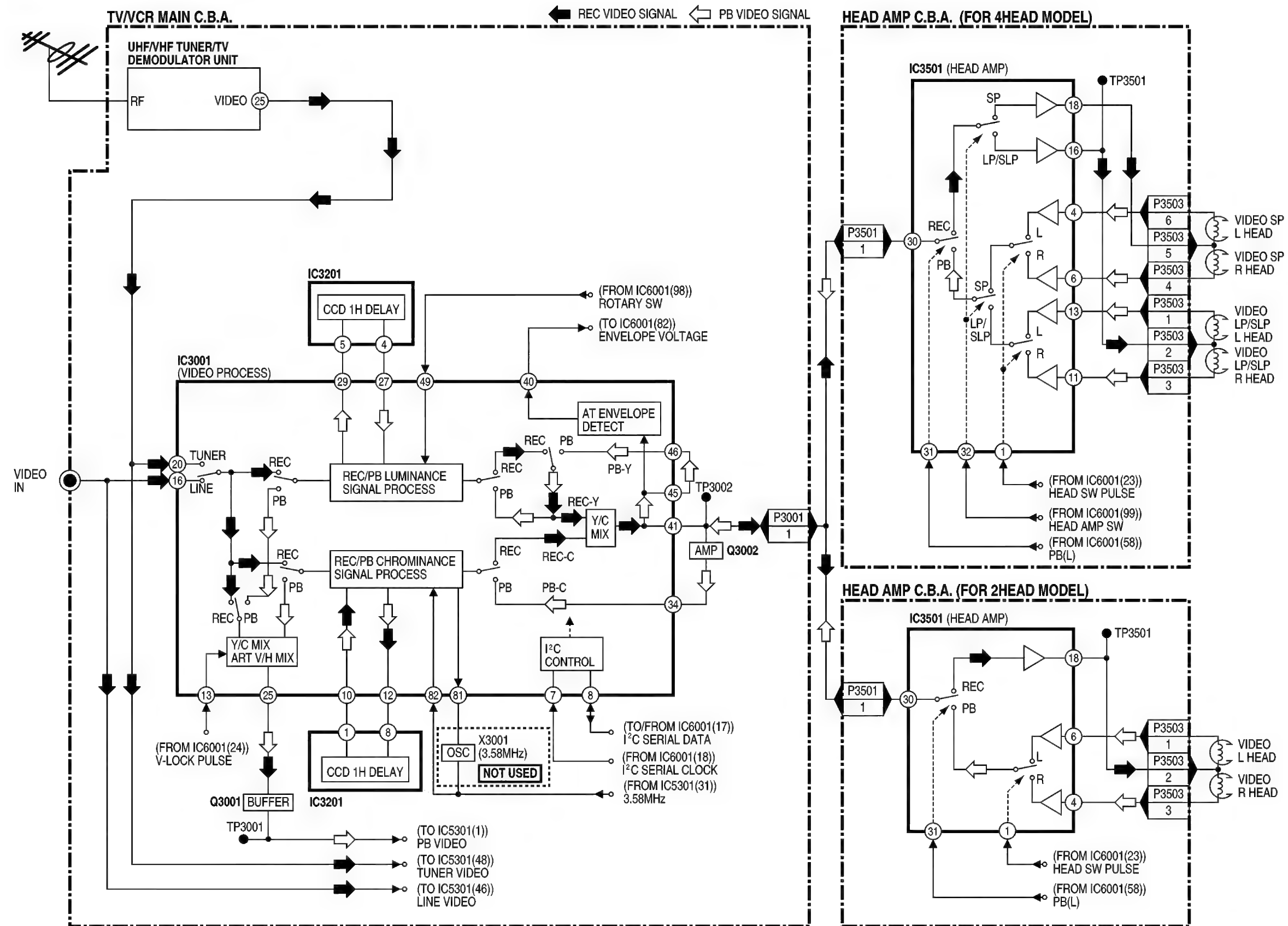
## POWER SUPPLY BLOCK DIAGRAM



### POWER SUPPLY BLOCK DIAGRAM

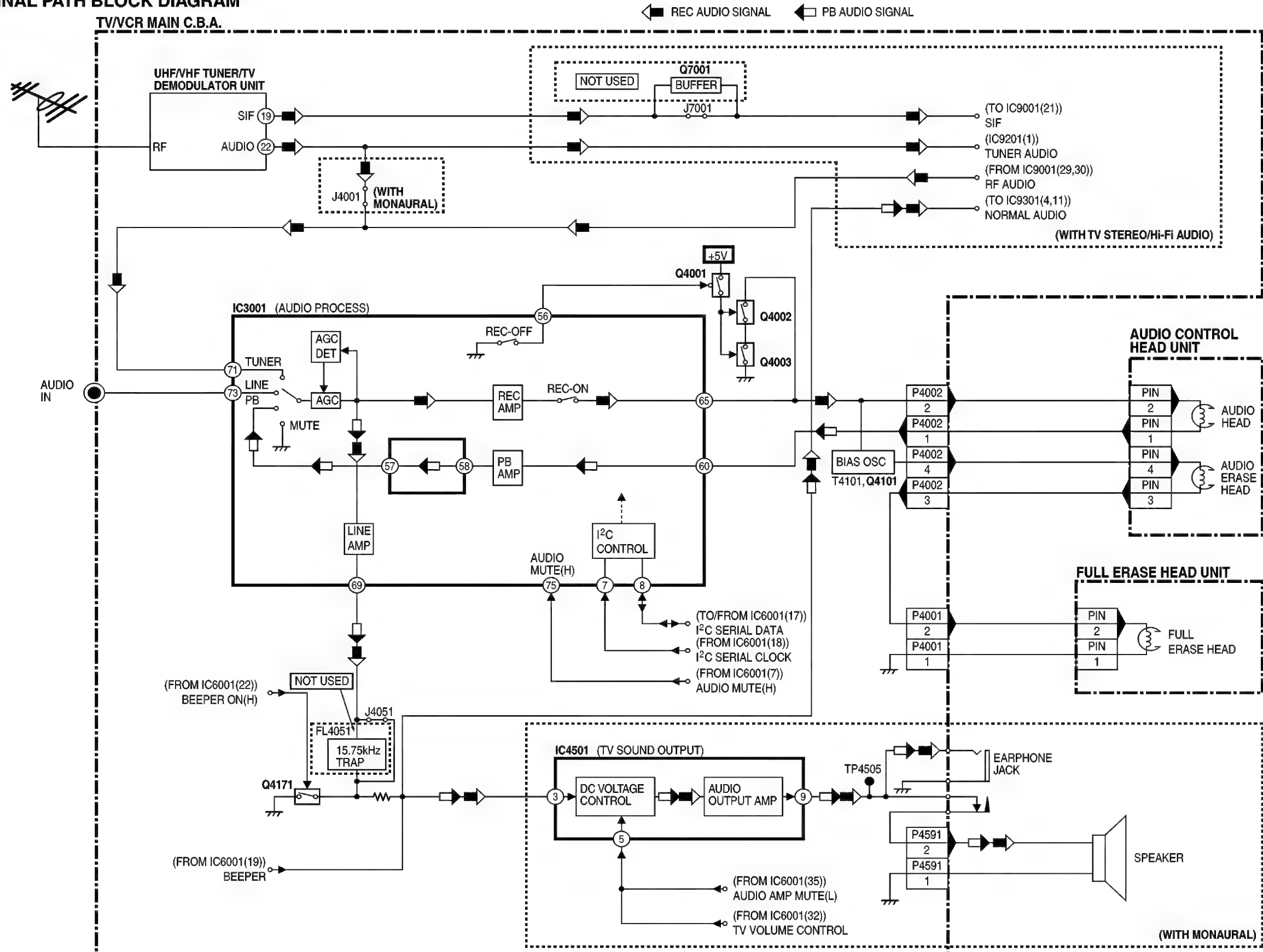
**PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343  
/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K**

VIDEO SIGNAL PATH BLOCK DIAGRAM



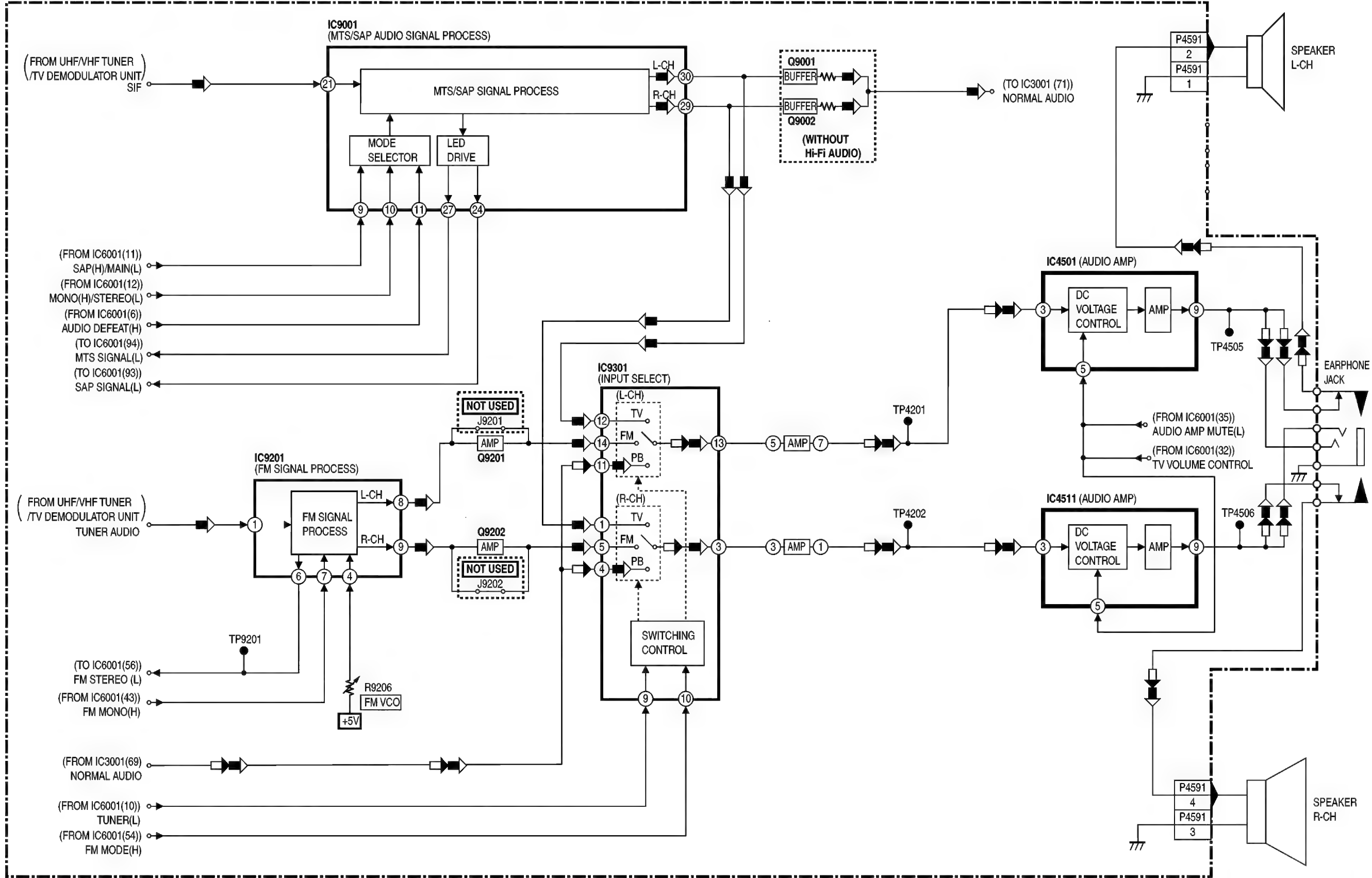
VIDEO SIGNAL PATH BLOCK DIAGRAM  
PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343  
/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K

## AUDIO SIGNAL PATH BLOCK DIAGRAM



AUDIO SIGNAL PATH BLOCK DIAGRAM  
 PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343  
 /PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K

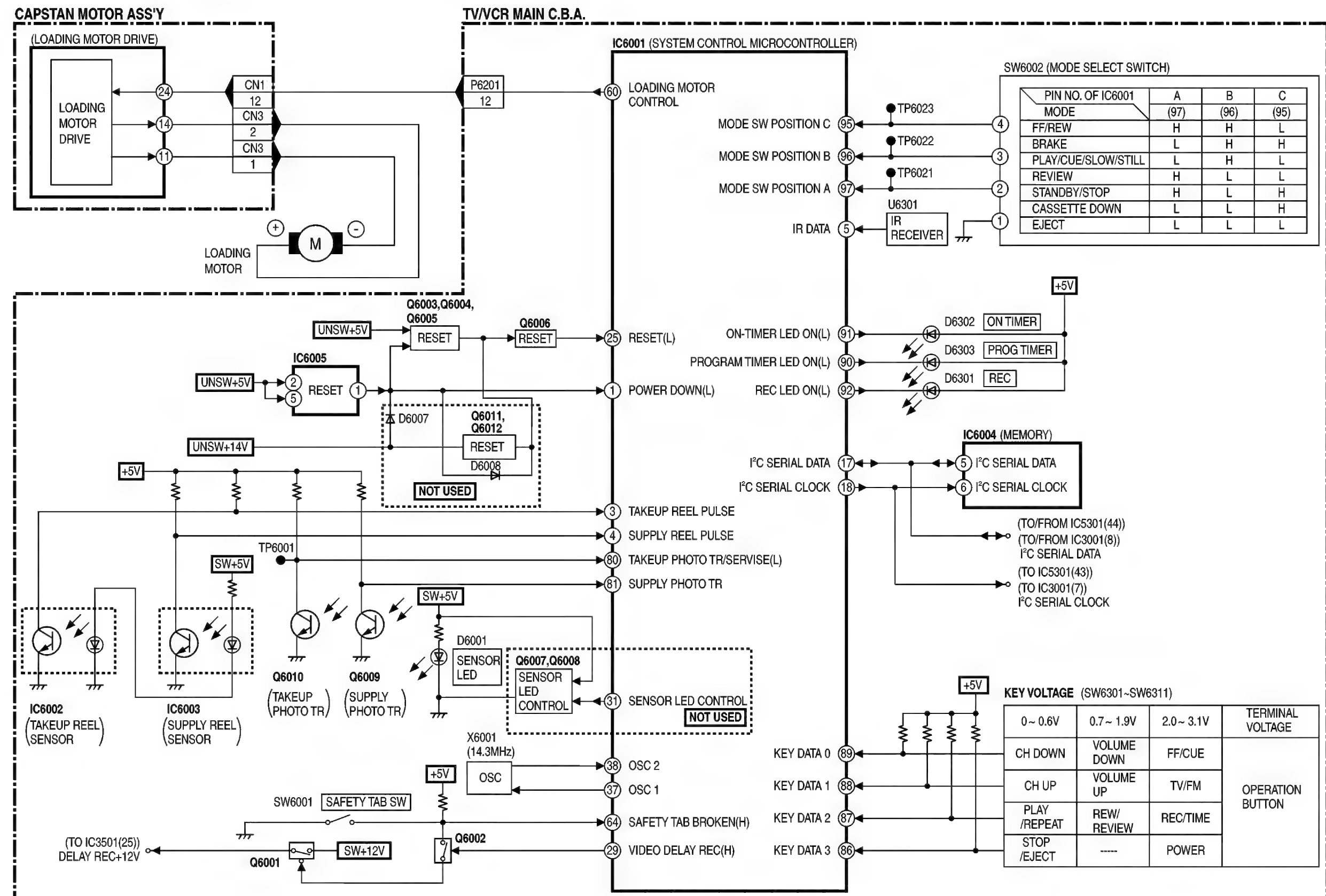
MTS/SAP AUDIO / AUDIO AMP BLOCK DIAGRAM (FOR MODEL WITH TV STEREO/Hi-Fi AUDIO)  
TV/VCR MAIN C.B.A.



MTS/SAP AUDIO / AUDIO AMP BLOCK DIAGRAM  
PV-C2063

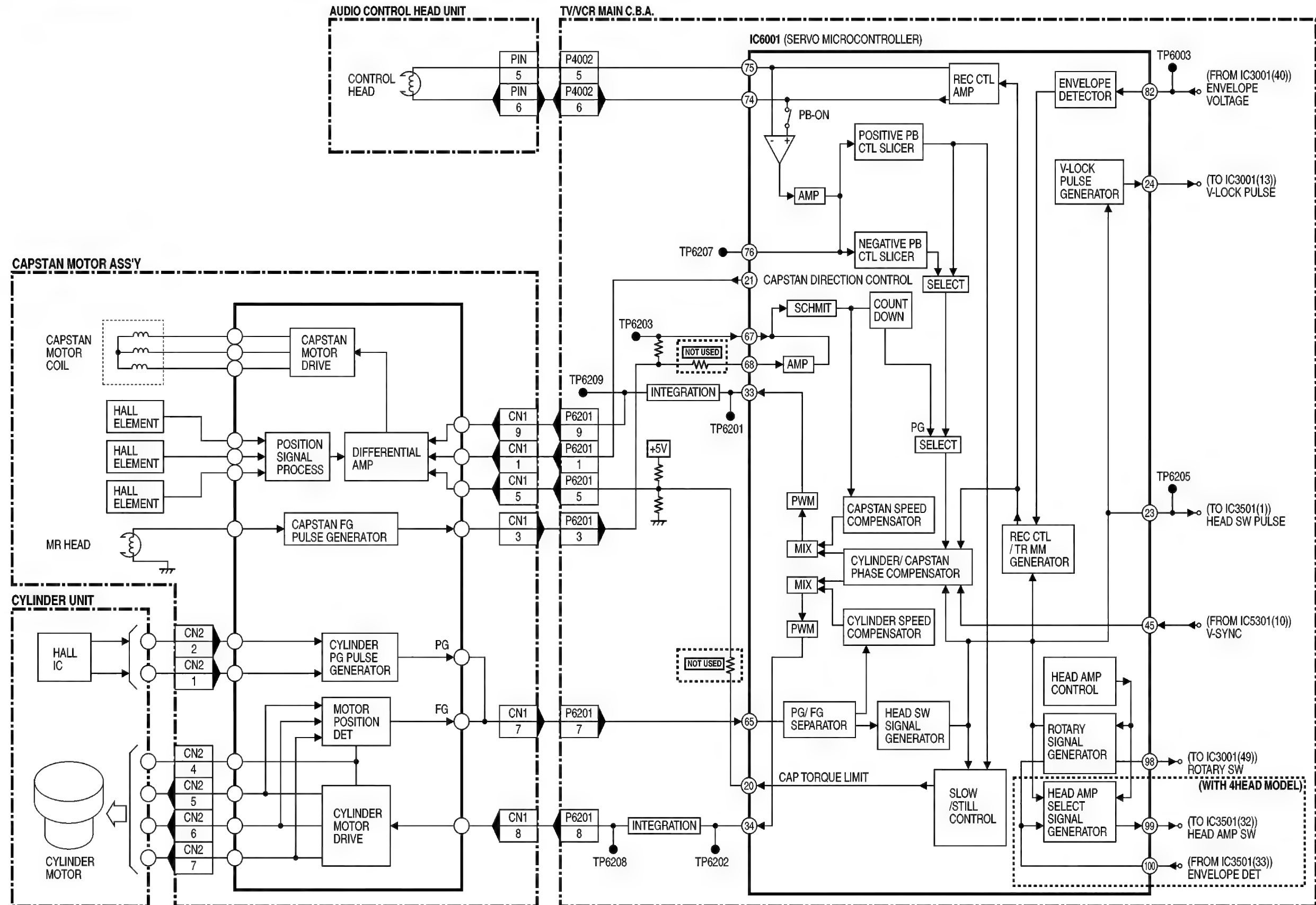


### SYSTEM CONTROL BLOCK DIAGRAM



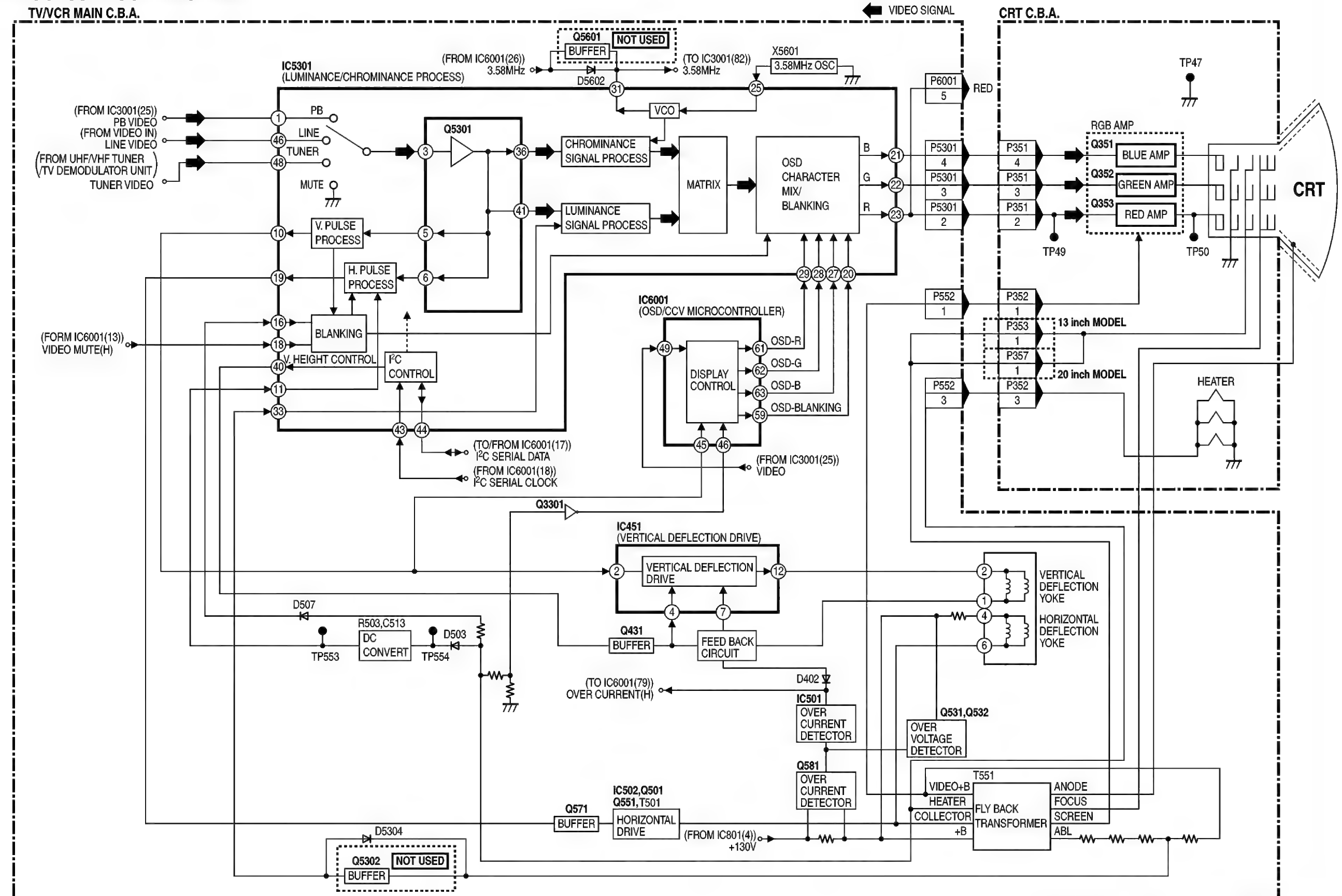
**SYSTEM CONTROL BLOCK DIAGRAM**  
**PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343**  
**/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K**

## SERVO BLOCK DIAGRAM



**SERVO BLOCK DIAGRAM**  
**PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343**  
**/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K**

### TV /Y/C PROCESS BLOCK DIAGRAM



**TV /Y/C PROCESS BLOCK DIAGRAM**  
**PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343**  
**/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063/PV-C2523-K**



## **11 EXPLODED VIEWS (Models: PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063)**

### **11.1. MECHANISM (TOP) SECTION**

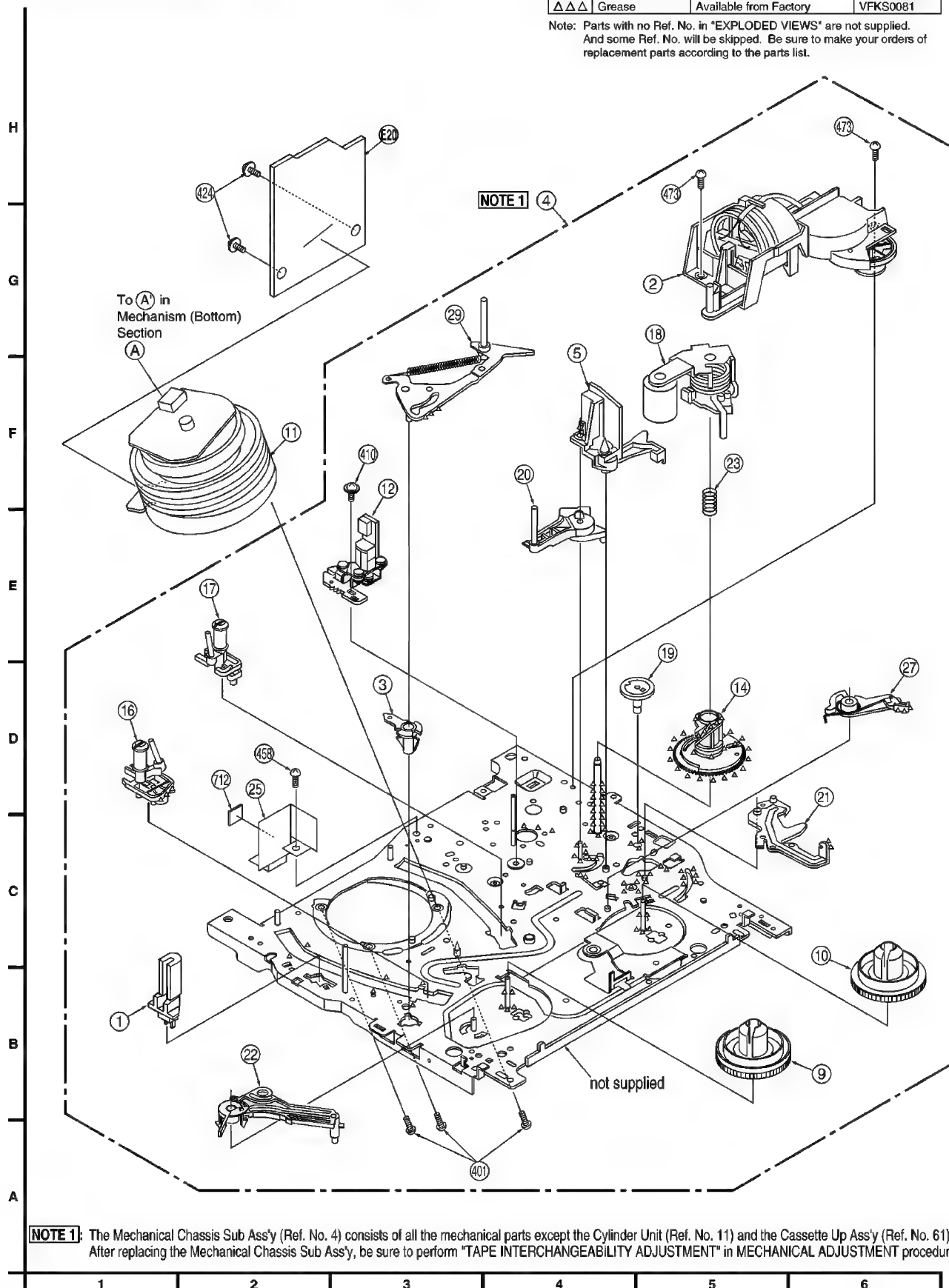
# 1 MECHANISM (TOP) SECTION

## LUBRICATION POINTS

When the marked parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

| Mark | Kind of Lubricant | Availability           | Part Number |
|------|-------------------|------------------------|-------------|
| △△△  | Grease            | Available from Factory | VFKS0081    |

Note: Parts with no Ref. No. in "EXPLODED VIEWS" are not supplied.  
And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.



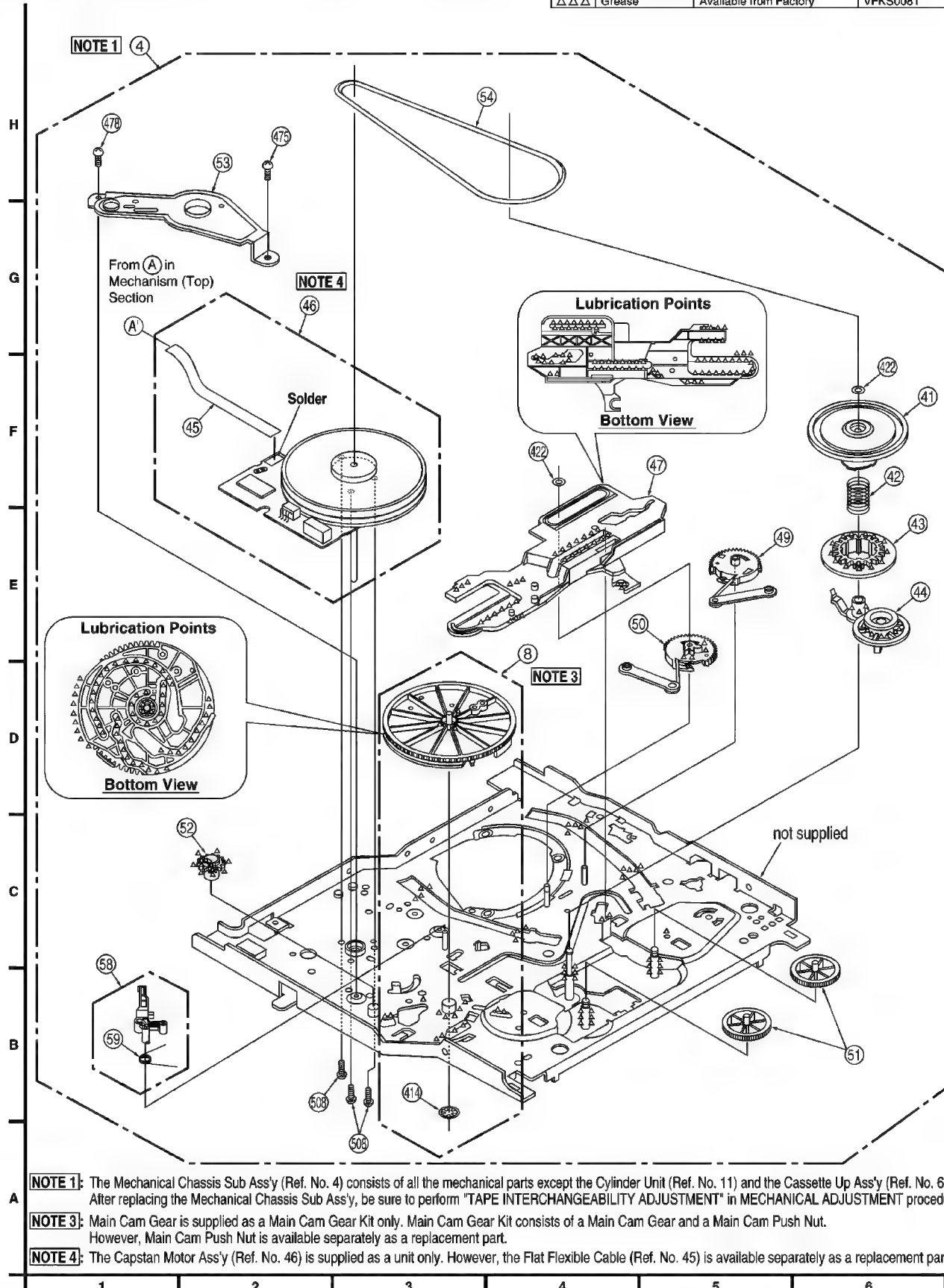
## 11.2. MECHANISM (BOTTOM) SECTION

### ② MECHANISM (BOTTOM) SECTION

#### LUBRICATION POINTS

When the marked parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

| Mark | Kind of Lubricant | Availability           | Part Number |
|------|-------------------|------------------------|-------------|
| △△△  | Grease            | Available from Factory | VFKS0081    |

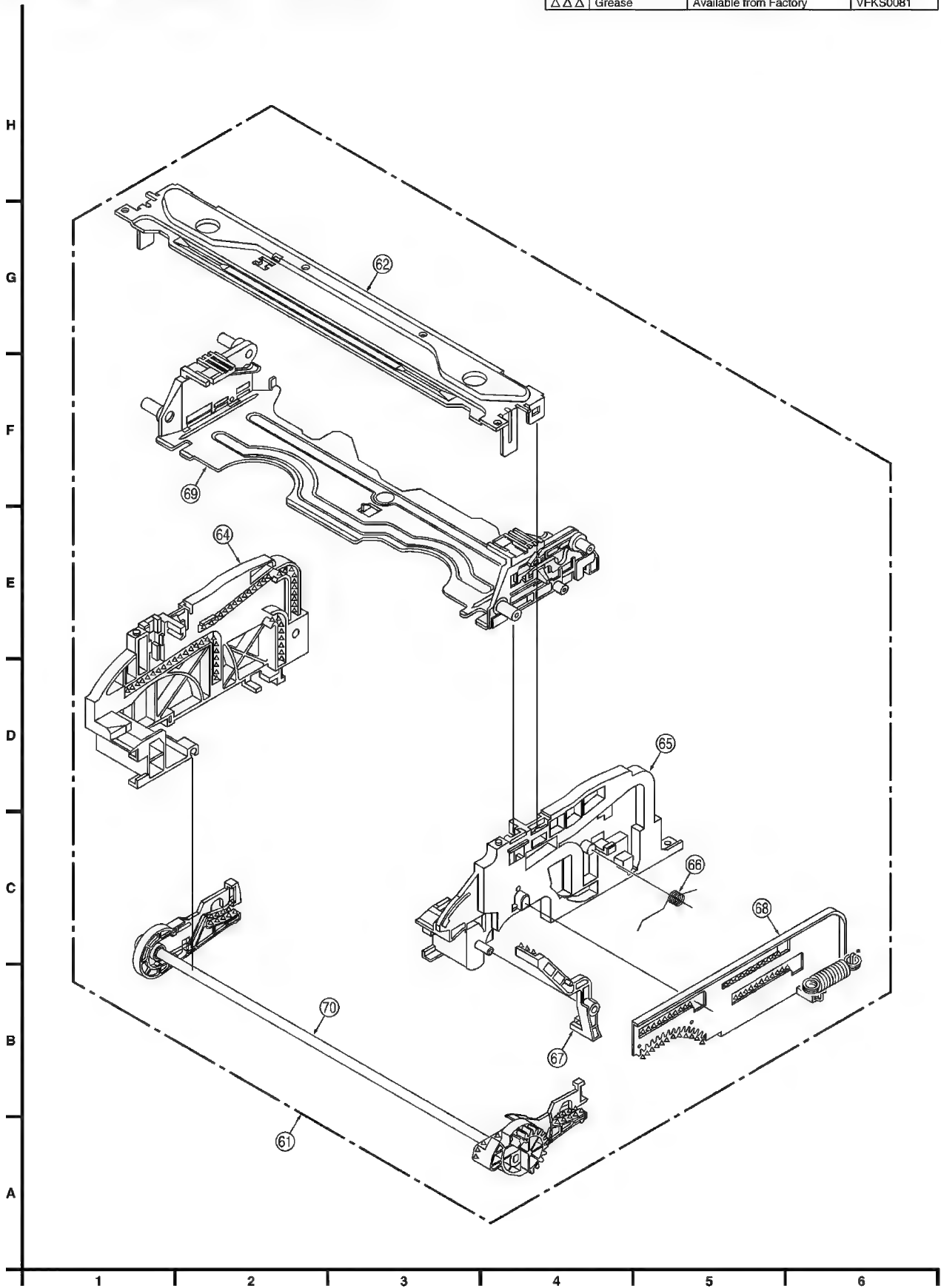


11.3. CASSETTE UP COMPARTMENT SECTION

③ CASSETTE UP  
COMPARTMENT SECTION

LUBRICATION POINTS  
When the marked parts are replaced, apply the recommended lubricants  
or adhesive for better maintenance of the unit.

| Mark | Kind of Lubricant | Availability           | Part Number |
|------|-------------------|------------------------|-------------|
| △△△  | Grease            | Available from Factory | VFKS0081    |






# 11.4. CHASSIS FRAME SECTION (1)

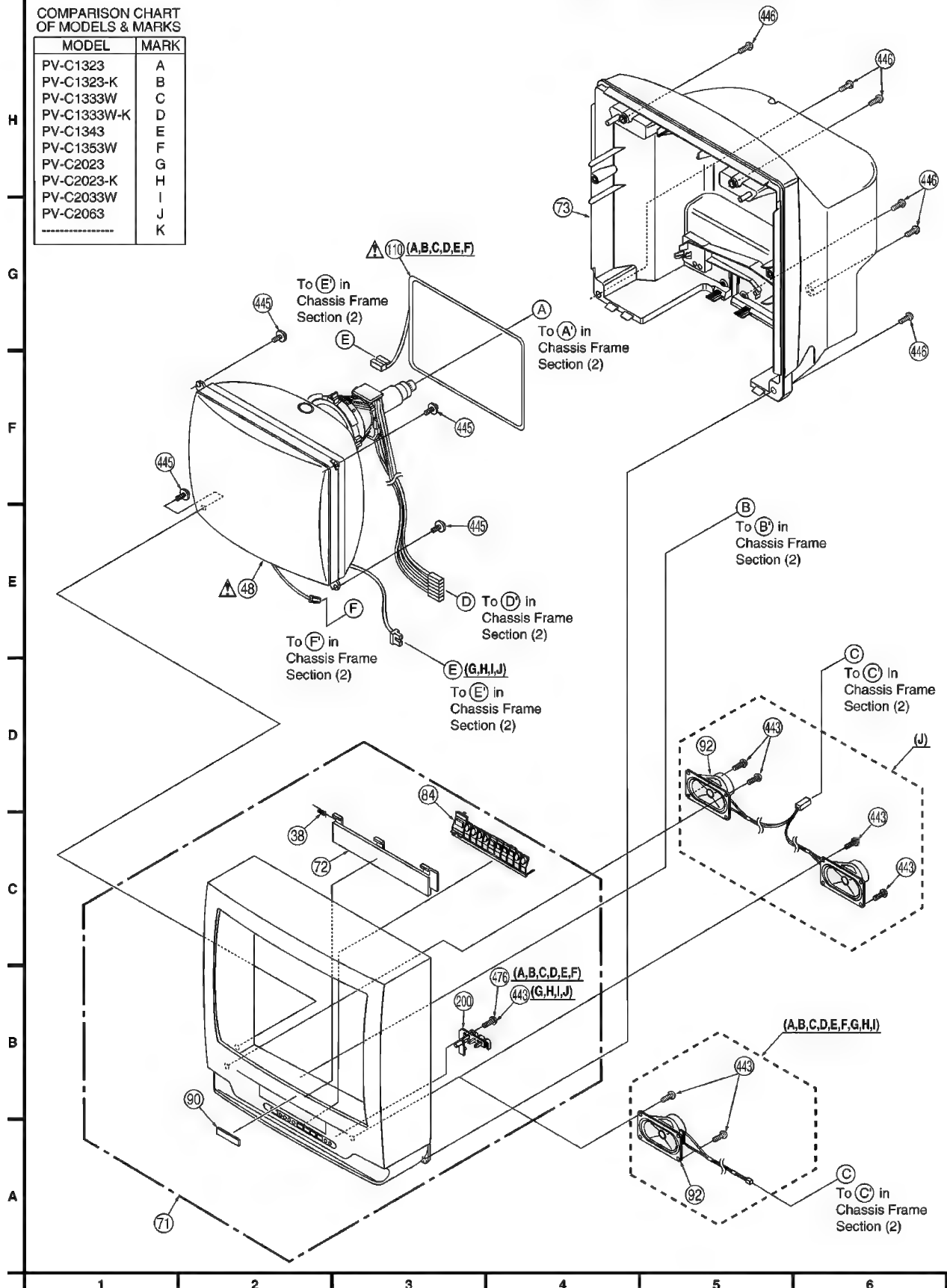
## 4 CHASSIS FRAME SECTION (1)

COMPARISON CHART  
OF MODELS & MARKS


| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

### IMPORTANT SAFETY NOTICE

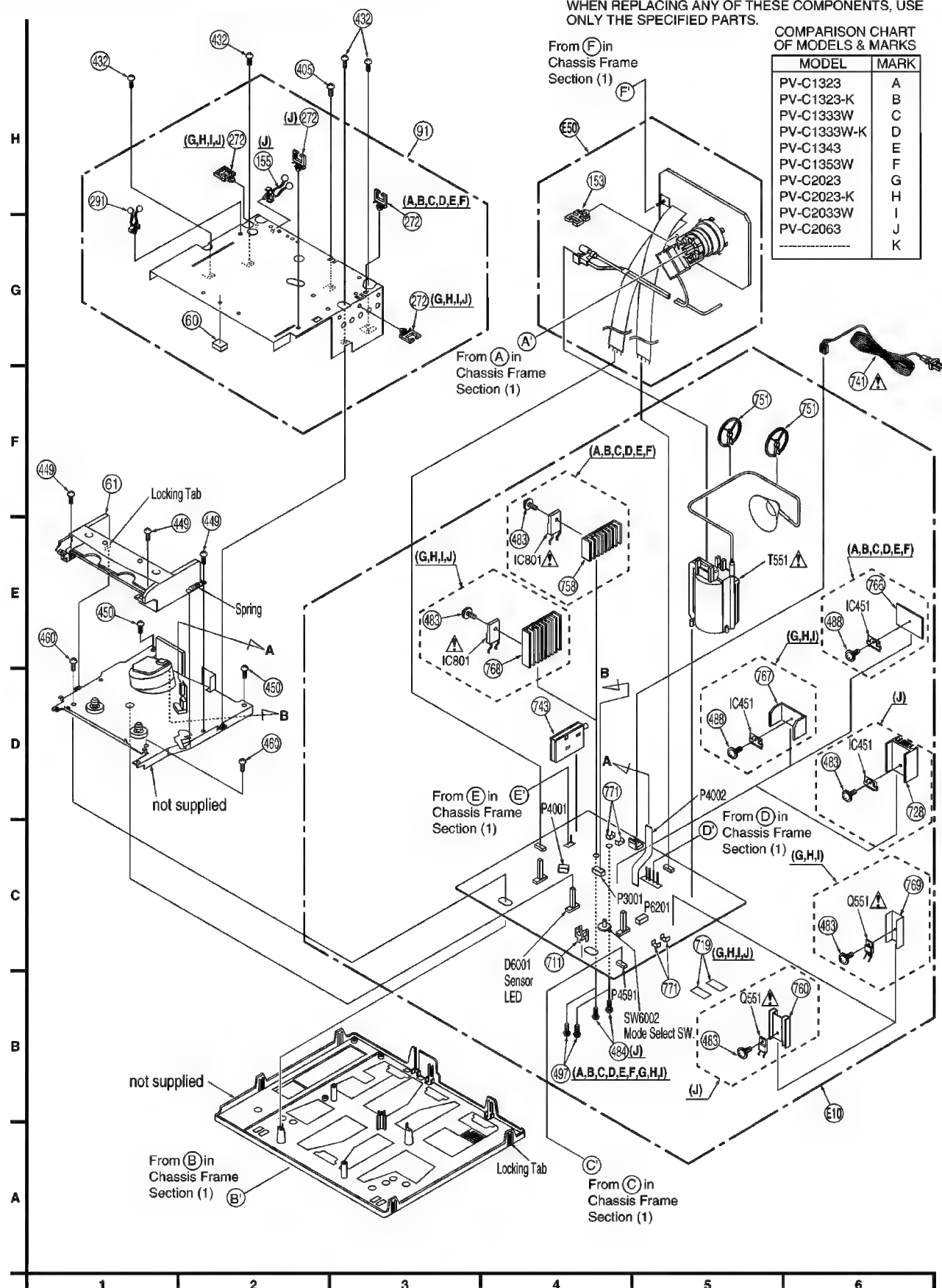
COMPONENTS IDENTIFIED BY THE SIGN  HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.



## 5 CHASSIS FRAME SECTION (2)

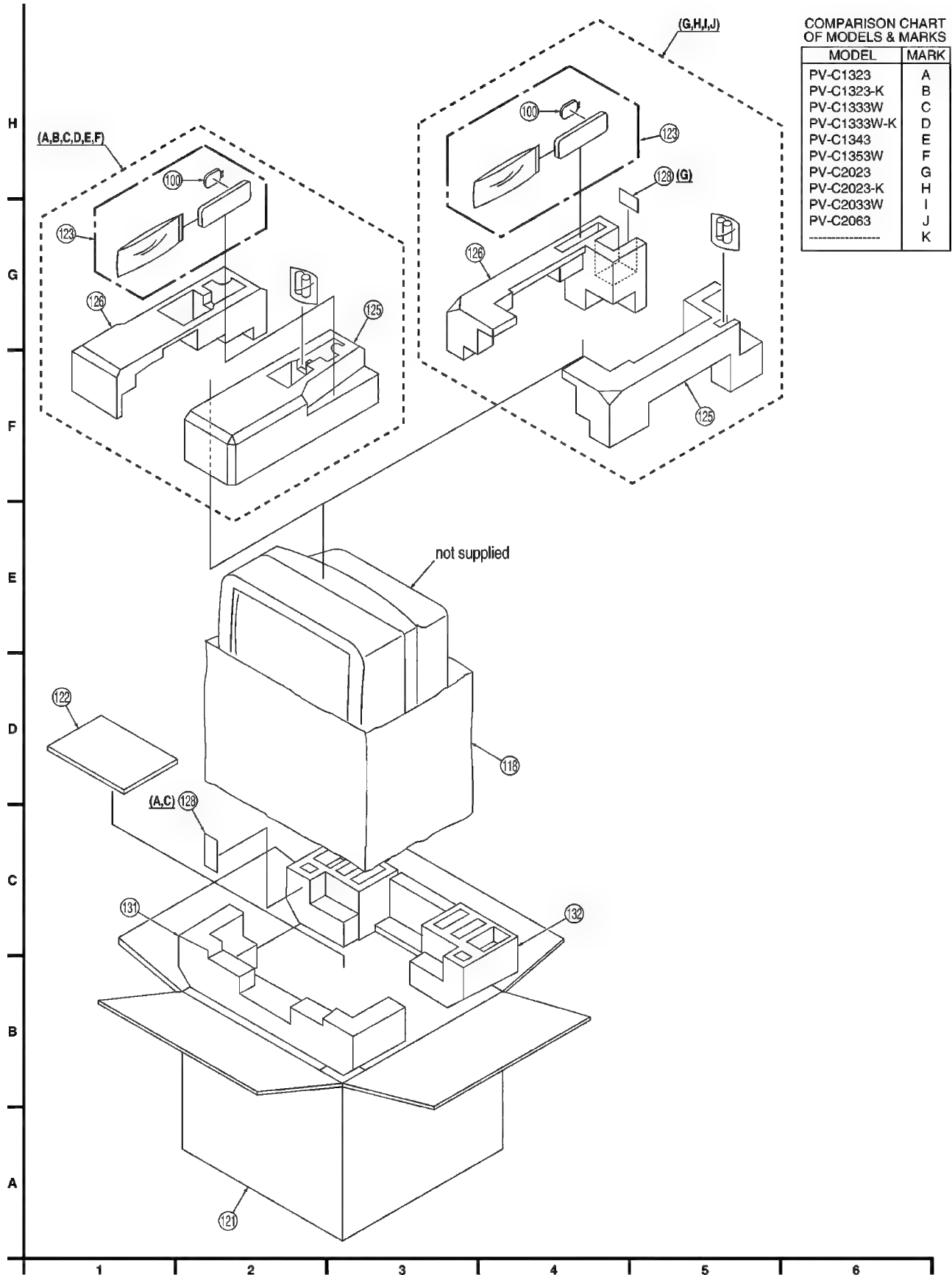
**IMPORTANT SAFETY NOTICE**  
COMPONENTS IDENTIFIED BY THE SIGN  HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |



# 11.6. PACKING PARTS AND ACCESSORIES SECTION

## 6 PACKING PARTS AND ACCESSORIES SECTION



# 12 REPLACEMENT PARTS LISTS (Models: PV-C1323/PV-C1323-K/PV-C1333W/PV-C1333W-K/PV-C1343/PV-C1353W/PV-C2023/PV-C2023-K/PV-C2033W/PV-C2063)

BEFORE REPLACING PARTS, READ THE FOLLOWING:

## 12.1. REPLACEMENT NOTES

### 12.1.1. General Notes

#### 1. Use only original replacement parts:

To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.

#### 2. IMPORTANT SAFETY NOTICE

Components identified by the sign  $\triangle$  have special characteristics important for safety. When replacing any of these components, use only the specified parts.

#### 3. SPECIAL NOTE

All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.

#### 4. Parts with no Ref. No. in "EXPLODED VIEWS" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.

#### 5. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.

#### 6. Definition of Parts supplier:

- Parts with mark "MKE" in the Remarks column are supplied from MKE.
- Parts without mark in the Remarks column are supplied from MKI.

#### 7. Item numbers with capital letter E (Example: E10, E20,...) in the Ref. No. column are shown in the exploded views.

#### 8. Parts whose Ref. Nos. are the same are interchangeable as replacement parts. Any of these parts may be ordered and used as a replacement part.

### 12.1.2. Mechanical Replacement Notes

#### 1. Section No. of parts shown in Exploded Views are indicated in the Remarks column.

#### 2. The Mechanical Chassis Sub Ass'y (Ref. No. 4) consists of all the mechanical parts except the Cylinder Unit (Ref. No. 11) and the Cassette Up Ass'y (Ref. No. 61).

After replacing the Mechanical Chassis Sub Ass'y, be sure to perform "TAPE INTERCHANGEABILITY ADJUSTMENT" in MECHANICAL ADJUSTMENT procedures.

#### 3. In early units, a washer is used.

When servicing the washer or the P5 Arm Unit, replace only the P5 Arm Unit with a new one, and remove the washer.

#### 4. Main Cam Gear is supplied as a Main Cam Gear Kit (Ref. No. 8) only. Main Cam Gear Kit consists of a Main Cam

Gear and a Main Cam Push Nut. However, Main Cam Push Nut is available separately as a replacement part.

#### 5. The Capstan Motor Ass'y (Ref. No. 46) is supplied as a unit only. However, the Flat Flexible Cable (Ref. No. 45) is available separately as a replacement part.

#### 6. The Infrared Remote Control Unit (Ref. No. 123) replacement part is available as a complete assembly unit only. Do not try to disassemble the Infrared Remote Control Unit. However, the battery cover is available separately as a replacement part.

#### 7. Main Cam Push Nut (Ref. No. 414) is not reusable. If removed, install a new one.

### 12.1.3. Electrical Replacement Notes

#### 1. Unless otherwise specified;

All resistors are in  $\Omega$ , K = 1,000  $\Omega$ , M = 1,000 k $\Omega$ .

#### 2. Abbreviation

|             |  |
|-------------|--|
| RTL:        | Retention Time Limited   |
|             | This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available. |
| NR:         | Non Repairable Board Ass'y   |
| MGF CHIP:   | Metal Glaze Film Chip  |
| C CHIP:     | Ceramic Chip   |
| COMPLX CMP: | Complex Component  |
| W FLMPRF:   | Wirewound Flameproof   |
| C.B.A.:     | Circuit Board Assembly   |
| P.C.B.:     | Printed Circuit Board  |
| E.S.D.:     | Electrostatically Sensitive Devices  |

#### 3. When replacing 0 $\Omega$ resistor, a wire can be substituted for it.

#### 4. Since the UHF/VHF TUNER/TV DEMODULATOR UNIT (Ref. No. 743) has already been pre-adjusted at the factory, do not try to adjust the UHF/VHF TUNER/TV DEMODULATOR UNIT. The UHF/VHF TUNER/TV DEMODULATOR UNIT replacement part is available as a complete assembly unit only.

#### 5. EEP ROM IC (IC6004) replacement note:

There are 2 types of EEPROM IC (IC6004) used on the Main C.B.A. (DIP TYPE and SOP TYPE). However, these are same reliability, please refer to "TV/VCR MAIN C.B.A." in CIRCUIT BOARD LAYOUT.

#### 6. TV/VCR MAIN C.B.A. replacement note:

When the TV/VCR MAIN C.B.A.s shown below are replaced, the Jumper wire(J801 or J810) of the new TV/VCR MAIN C.B.A. must be cut before use. If the Jumper wire isn't cut, the power does not turned on to the TV circuit.

As for the location of the Jumper wire, please refer to "TV/VCR MAIN C.B.A." in CIRCUIT BOARD LAYOUT.

## COMPARISON CHART OF MODELS &amp; MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

## 12.2. MECHANICAL REPLACEMENT PARTS LIST

## COMPARISON CHART OF MODELS &amp; MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

## Definition of Parts supplier:

- Parts with mark "MKE" in the Remarks column are supplied from MKE.
- Parts without mark in the Remarks column are supplied from MKI.

## MECHANICAL REPLACEMENT PARTS

| Ref. No. | Part No. | Part Name & Description         | Remarks  |
|----------|----------|---------------------------------|----------|
| 1        | VBSS0033 | FULL ERASE HEAD                 | 1        |
| 2        | LSXK0109 | MOTOR BLOCK UNIT                | 1        |
| 3        | LSDB0045 | TENSION ARM BOSS                | 1        |
| 4        | LSXY0463 | MECHANICAL CHASSIS SUB ASS'Y    | 1, 2 RTL |
| 5        | LSMD0209 | OPENER PIECE                    | 1        |
| 8        | LSVD0007 | MAIN CAM GEAR KIT               | 2        |
| 9        | LSDR0004 | S REEL TABLE                    | 1        |
| 10       | LSDR0005 | T REEL TABLE                    | 1        |
| 11       | LSEG0013 | CYLINDER UNIT ( A,B,C,D,G,H,I ) | 1        |
| 11       | LSEG0069 | CYLINDER UNIT ( E,F,J )         | 1        |
| 12       | LSEH0006 | AUDIO CONTROL/ERASE HEAD UNIT   | 1        |
| 14       | LSDG0112 | LIFT GEAR                       | 1        |
| 16       | VXDS0213 | LOADING POST BASE-S UNIT        | 1        |

| Ref. No. | Part No.    | Part Name & Description                | Remarks |
|----------|-------------|--|---------|
| 17       | VXDS0214    | LOADING POST BASE-T UNIT               | 1       |
| 18       | LSXL0079    | PINCH ARM UNIT                         | 1       |
| 19       | LSDG0110    | INTERMEDIATE GEAR A                    | 1       |
| 20       | LSXL0078    | P5 ARM UNIT                            | 1       |
| 21       | LSML0360    | DRIVE RACK ARM                         | 1       |
| 22       | LSXL0077    | TENSION CONTROL ARM UNIT               | 1       |
| 23       | LSMB0282    | PINCH ASSIST SPRING                    | 1       |
| 25       | LSSC0518    | A/C SHIELD PLATE                       | 1       |
| 27       | VXLS1130    | T BRAKE UNIT                           | 1       |
| 29       | VXLS1129    | TENSION ARM UNIT                       | 1       |
| 38       | LSMB0289    | CASSETTE DOOR SPRING                   | 4       |
| 41       | VXPS0389    | CENTER CLUTCH UNIT                     | 2       |
| 42       | VMBS1151    | CHANGING GEAR SPRING                   | 2       |
| 43       | LSDG0114    | CHANGING GEAR                          | 2       |
| 44       | VXLS1091    | IDLER ARM UNIT                         | 2       |
| 45       | LSJW0027    | FLAT FLEXIBLE CABLE W/OUT PLUG, 12V DC | 2       |
| 46       | LSEM0078    | CAPSTAN MOTOR ASS'Y                    | 2       |
| 47       | LSMM0007    | MAIN ROD                               | 2       |
| 48       | LXQVB01131  | COLOR PICTURE TUBE UNIT ( A,B,C,D )    | 4 △     |
| 48       | LXQVB01133  | COLOR PICTURE TUBE UNIT ( E,F )        | 4 △     |
| 48       | LXQVB01202  | COLOR PICTURE TUBE UNIT ( G,H,I )      | 4 △     |
| 48       | LXQVB02202  | COLOR PICTURE TUBE UNIT ( J )          | 4 △     |
| 49       | VXLS1099    | S LOADING ARM UNIT                     | 2       |
| 50       | VXLS1098    | T LOADING ARM UNIT                     | 2       |
| 51       | LSDG0116    | REEL GEAR                              | 2       |
| 52       | LSDG0111    | INTERMEDIATE GEAR B                    | 2       |
| 53       | LSMA0532    | SUPPORT ANGLE                          | 2       |
| 54       | LSDV0009    | CAPSTAN BELT SQUARE, ELASTOMER 2MM     | 2       |
| 58       | LSXL0087    | SS BRAKE ARM UNIT                      | 2       |
| 59       | LSMB0196    | SS BRAKE SPRING                        | 2       |
| 60       | VMFS0311    | CUSHION                                | 5       |
| 61       | LSXY0483    | CASSETTE UP ASS'Y                      | 3, 5    |
| 62       | LSMA0352    | TOP PLATE                              | 3       |
| 64       | LSMD0174    | SIDE PLATE L                           | 3       |
| 65       | LSMD0173    | SIDE PLATE R                           | 3       |
| 66       | LSMB0218    | SUPPORT SPRING                         | 3       |
| 67       | LSML0096    | OPENER LEVER                           | 3       |
| 68       | VXLS1111    | DRIVE RACK UNIT                        | 3       |
| 69       | LSXA0497    | HOLDER UNIT                            | 3       |
| 70       | VXLS1110    | WIPER ARM UNIT                         | 3       |
| 71       | LXQKY02132  | FRONT CABINET ASS'Y ( A,B )            | 4       |
| 71       | LXQKY03132  | FRONT CABINET ASS'Y ( C,D )            | 4       |
| 71       | LXQKY04132  | FRONT CABINET ASS'Y ( E )              | 4       |
| 71       | LXQKY05132  | FRONT CABINET ASS'Y ( F )              | 4       |
| 71       | LXQKY02202  | FRONT CABINET ASS'Y ( G,H )            | 4       |
| 71       | LXQKY03202  | FRONT CABINET ASS'Y ( I )              | 4       |
| 71       | LXQKY04202  | FRONT CABINET ASS'Y ( J )              | 4       |
| 72       | LSKF0440    | CASSETTE DOOR-LID ( A,B )              | 4       |
| 72       | LSKF0441    | CASSETTE DOOR-LID ( C,D )              | 4       |
| 72       | LSKF0442    | CASSETTE DOOR-LID ( E )                | 4       |
| 72       | LSKF0443    | CASSETTE DOOR-LID ( F )                | 4       |
| 72       | LSKF0446    | CASSETTE DOOR-LID ( G,H )              | 4       |
| 72       | LSKF0447    | CASSETTE DOOR-LID ( I )                | 4       |
| 72       | LSKF0409    | CASSETTE DOOR-LID ( J )                | 4       |
| 73       | LKV60601A   | REAR COVER ( A,E )                     | 4       |
| 73       | LXQKV08139  | REAR COVER UNIT ( B )                  | 4       |
| 73       | LKV60602B   | REAR COVER ( C,F )                     | 4       |
| 73       | LXQKV09139  | REAR COVER UNIT ( D )                  | 4       |
| 73       | LSGV0029    | REAR COVER ( G )                       | 4       |
| 73       | LXQKV01202  | REAR COVER UNIT ( H )                  | 4       |
| 73       | LSGV0030    | REAR COVER ( I )                       | 4       |
| 73       | LKV60501A   | REAR COVER ( J )                       | 4       |
| 84       | LBV61044B   | OPERATION BUTTON ( A,B,E,G,H,J )       | 4       |
| 84       | LBX61072B   | OPERATION BUTTON ( C,D,F,I )           | 4       |
| 90       | TBM153023   | BADGE, ABS RESIN ( A,B,C,D,E,F )       | 4       |
| 90       | TBM153022   | BADGE, ABS RESIN ( G,H,I,J )           | 4       |
| 91       | LXQUS01131K | TOP SHIELD PLATE ASS'Y ( A,B,C,D,E,F ) | 5       |

| Ref. No. | Part No.    | Part Name & Description                        | Remarks |
|----------|-------------|--|---------|
| 91       | LXQUS01202K | TOP SHIELD PLATE ASS'Y ( G,H,I )               | 5       |
| 91       | LXQUS01203K | TOP SHIELD PLATE ASS'Y ( J )                   | 5       |
| 92       | LXQAS01J13  | SPEAKER UNIT ( A,B,C,D,E,F,G,H,I )             | 4       |
| 92       | LXQAS1301S  | SPEAKER UNIT ( J )                             | 4       |
| 100      | LSKF0492    | BATTERY COVER ( A,B,E )                        | 6       |
| 100      | LSKF0493    | BATTERY COVER ( C,D,F )                        | 6       |
| 100      | VKFS2235    | BATTERY COVER ( G,H,J )                        | 6       |
| 100      | VKFS2237    | BATTERY COVER ( I )                            | 6       |
| 110      | LLJ69006Z   | DEGAUSSING COIL ( A,B,C,D,E,F )                | 4 △     |
| 118      | LPE64003A   | BAG,POLYETHYLENE ( A,B,C,D,E,F )               | 6       |
| 118      | LPE64004A   | BAG,POLYETHYLENE ( G,H,I,J )                   | 6       |
| 121      | LSPGL439    | PACKING CASE,PAPER ( A,B )                     | 6       |
| 121      | LSPGL440    | PACKING CASE,PAPER ( C,D )                     | 6       |
| 121      | LSPGL441    | PACKING CASE,PAPER ( E )                       | 6       |
| 121      | LSPGL442    | PACKING CASE,PAPER ( F )                       | 6       |
| 121      | LSPGL444    | PACKING CASE,PAPER ( G,H )                     | 6       |
| 121      | LSPGL445    | PACKING CASE,PAPER ( I )                       | 6       |
| 121      | LSPGL446    | PACKING CASE,PAPER ( J )                       | 6       |
| 122      | LSQT0664A   | INSTRUCTION BOOK ( A,C,E,F )                   | 6       |
| 122      | LSQF0715    | FAN BAG ( B,D )                                | 6       |
| 122      | LSQT0665A   | INSTRUCTION BOOK ( G,I )                       | 6       |
| 122      | LSQF0716    | FAN BAG ( H )                                  | 6       |
| 122      | LSQT0666A   | INSTRUCTION BOOK ( J )                         | 6       |
| 123      | LSSQ0382    | INFRARED REMOTE CONTROL UNIT ( A,B,E )         | 6       |
| 123      | LSSQ0383    | INFRARED REMOTE CONTROL UNIT ( C,D,F )         | 6       |
| 123      | LSSQ0380    | INFRARED REMOTE CONTROL UNIT ( G,H )           | 6       |
| 123      | LSSQ0384    | INFRARED REMOTE CONTROL UNIT ( I )             | 6       |
| 123      | LSSQ0381    | INFRARED REMOTE CONTROL UNIT ( J )             | 6       |
| 125      | LPJ61029A   | TOP CUSHION RIGHT,STYROFOAM ( A,B,C,D,E,F )    | 6       |
| 125      | LPJ61028A   | TOP CUSHION RIGHT,STYROFOAM ( G,H,I,J )        | 6       |
| 126      | LPJ61030A   | TOP CUSHION LEFT,STYROFOAM ( A,B,C,D,E,F )     | 6       |
| 126      | LPJ61027A   | TOP CUSHION LEFT,STYROFOAM ( G,H,I,J )         | 6       |
| 128      | ZLDRS1      | SECURITY TAG ( A,C,G )                         | 6       |
| 131      | LPJ62029A   | BOTTOM CUSHION FRONT,STYROFOAM ( A,B,C,D,E,F ) | 6       |
| 131      | LPJ62027A   | BOTTOM CUSHION FRONT,STYROFOAM ( G,H,I,J )     | 6       |
| 132      | LPJ62030A   | BOTTOM CUSHION REAR,STYROFOAM ( A,B,C,D,E,F )  | 6       |
| 132      | LPJ62028A   | BOTTOM CUSHION REAR,STYROFOAM ( G,H,I,J )      | 6       |
| 153      | TMM7443-1   | CLAMPER  | 5       |
| 155      | TMM76403-1  | CLAMPER ( J )                                  | 5       |
| 200      | LKK683010A  | PANEL LIGHT ( A,B,C,D,E,F )                    | 4       |
| 200      | LKK683009A  | PANEL LIGHT ( G,H,I,J )                        | 4       |
| 272      | TMM77412    | CLAMPER  | 5       |
| 291      | LML69002A   | CLAMPER  | 5       |
| 401      | VHDS0475    | SCREW,STEEL                                    | 1       |
| 405      | VHDS0496    | SCREW W/WASHER,STEEL                           | 5       |
| 410      | VHDS0498    | SCREW W/WASHER,STEEL                           | 1       |
| 414      | VHNS0070    | MAIN CAM PUSH NUT,STEEL                        | 2       |
| 422      | XWGV2D5G    | WASHER,NYLON                                   | 2       |
| 424      | XYC26+SF6J  | SCREW W/WASHER,STEEL                           | 1       |
| 432      | XTV3+8JR    | TAPPING SCREW,STEEL                            | 5       |
| 443      | XTV4+12A    | TAPPING SCREW,STEEL                            | 4       |
| 445      | THE492-4    | SCREW W/WASHER,STEEL ( A,B,C,D,E,F )           | 4       |
| 445      | LHT60002Y   | SCREW,STEEL ( G,H,I,J )                        | 4       |
| 446      | XTV4+16A    | TAPPING SCREW,STEEL                            | 4       |
| 449      | VHDS0493    | TAPPING SCREW,STEEL                            | 5       |
| 450      | VHDS0309    | SCREW,STEEL                                    | 5       |
| 458      | XTV3+8J     | TAPPING SCREW,STEEL                            | 1       |
| 460      | XTN4+12A    | TAPPING SCREW,STEEL                            | 5       |

| Ref. No. | Part No.     | Part Name & Description                    | Remarks |
|----------|--------------|--|---------|
| 473      | XYN26+C6     | SCREW W/WASHER,STEEL                       | 1       |
| 475      | XTV26+5FJ    | TAPPING SCREW,STEEL                        | 2       |
| 476      | XTV3+12G     | TAPPING SCREW,STEEL ( A,B,C,D,E,F )        | 4       |
| 478      | VHDS0495     | SCREW,STEEL                                | 2       |
| 483      | XYN3+F10S    | SCREW W/WASHER,STEEL                       | 5       |
| 484      | XTW3+10J     | TAPPING SCREW,STEEL ( J )                  | 5       |
| 488      | XYN3+F6S     | SCREW W/WASHER,STEEL ( A,B,C,D,E,F,G,H,I ) | 5       |
| 497      | XTV3+10J     | TAPPING SCREW,SCREW ( A,B,C,D,E,F,G,H,I )  | 5       |
| 508      | XTB26+6J     | TAPPING SCREW,STEEL                        | 2       |
| 711      | PNA4611M00HC | INFRARED RECEIVER UNIT                     | 5       |
| 712      | VMTS0035     | CUSHION,RUBBER                             | 1       |
| 719      | VMFS0136     | SHEET,NYLON-RAYON ( G,H,I,J )              | 5       |
| 728      | LUS63008A    | HEAT SINK ( J )                            | 5       |
| 741      | LSJA0362     | AC CORD W/PLUG,120V ( A,B,E,G,H,I,J )      | 5 △     |
| 741      | LSJA0343     | AC CORD W/PLUG,120V ( A,B,E,G,H,I,J )      | 5 △     |
| 741      | LSJA0364     | AC CORD W/PLUG,120V ( A,B,E,G,H,I,J )      | 5 △     |
| 741      | LSJA0363     | AC CORD W/PLUG,120V ( C,D,F )              | 5 △     |
| 741      | LSJA0344     | AC CORD W/PLUG,120V ( C,D,F )              | 5 △     |
| 741      | LSJA0365     | AC CORD W/PLUG,120V ( C,D,F )              | 5 △     |
| 743      | ENG36709GL   | TUNER,UHF/VHF NR ( A,B,C,D,E,F,G,H,I )     | 5       |
| 743      | ENG36715G    | TUNER,UHF/VHF NR ( J )                     | 5       |
| 751      | LML69001A    | ANODE LEAD CLAMPER                         | 5       |
| 758      | TUC77616     | HEAT SINK ( A,B,C,D,E,F )                  | 5       |
| 760      | TUC77628     | HEAT SINK ( J )                            | 5       |
| 766      | TUC76677-1   | HEAT SINK ( A,B,C,D,E,F )                  | 5       |
| 767      | TUC77626     | HEAT SINK ( G,H,I )                        | 5       |
| 768      | TUC77603-1   | HEAT SINK ( G,H,I,J )                      | 5       |
| 769      | LUS23005B    | HEAT SINK ( G,H,I )                        | 5       |
| 771      | EYF52BC      | FUSE HOLDER                                | 5       |
| E10      | LSEP2012T    | TV/VCR MAIN C.B.A. ( A,B,C,D )             | 5 RTL   |
| E10      | LSEP2012S    | TV/VCR MAIN C.B.A. ( E,F )                 | 5 RTL   |
| E10      | LSEP2012C    | TV/VCR MAIN C.B.A. ( G,H,I )               | 5 RTL   |
| E10      | LSEP2083A    | TV/VCR MAIN C.B.A. ( J )                   | 5 RTL   |
| E20      | LSEP2008A    | HEAD AMP C.B.A. ( A,B,C,D,G,H,I )          | 5 RTL   |
| E20      | LSEP2009A    | HEAD AMP C.B.A. ( E,F,J )                  | 1 RTL   |
| E50      | LRP63004D    | CRT C.B.A. ( A,B,C,D,E,F )                 | 1 RTL   |
| E50      | LRP63022B    | CRT C.B.A. ( G,H,I,J )                     | 5 RTL   |

## SERVICE FIXTURES AND TOOLS

| Ref. No. | Part No.   | Part Name & Description      | Remarks |
|----------|------------|------------------------------|---------|
|          | VFMS0003H6 | VHS ALIGNMENT TAPE           | MKE     |
|          | VFKS0081   | GREASE                       | MKE     |
|          | VFK0329    | POST ADJUSTMENT DRIVER       | MKE     |
|          | VFK27      | HEAD CLEANING STICK          | MKE     |
|          | VFK0330    | H-POSITION ADJUSTMENT DRIVER | MKE     |

## 12.3. ELECTRICAL REPLACEMENT PARTS LIST

### COMPARISON CHART OF MODELS & MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

#### Definition of Parts supplier:

1. All parts are supplied from MKI.

#### PRINTED CIRCUIT BOARD ASSEMBLY

| Ref. No. | Part No.  | Part Name & Description           | Remarks    |
|----------|-----------|-----------------------------------|------------|
| E10      | LSEP2012T | TV/VCR MAIN C.B.A. ( A,B,C,D )    | E.S.D. RTL |
| E10      | LSEP2012S | TV/VCR MAIN C.B.A. ( E,F )        | E.S.D. RTL |
| E10      | LSEP2012C | TV/VCR MAIN C.B.A. ( G,H,I )      | E.S.D. RTL |
| E10      | LSEP2083A | TV/VCR MAIN C.B.A. ( J )          | E.S.D. RTL |
| E20      | LSEP2008A | HEAD AMP C.B.A. ( A,B,C,D,G,H,I ) | RTL        |
| E20      | LSEP2009A | HEAD AMP C.B.A. ( E,F,J )         | RTL        |
| E50      | LRP63004D | CRT C.B.A. ( A,B,C,D,E,F )        | RTL        |
| E50      | LRP63022B | CRT C.B.A. ( G,H,I,J )            | RTL        |

### 12.3.1. TV/VCR MAIN C.B.A.

(Model: A, B, C, D, E, F, G, H, I)

### COMPARISON CHART OF MODELS & MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

### INTEGRATED CIRCUITS

| Ref. No. | Part No.      | Part Name & Description    | Remarks |
|----------|---------------|----------------------------|---------|
| IC451    | CLAA00000024  | IC, LINEAR                 |         |
| IC501    | CNC1S101R1KT  | IC, LINEAR                 | △       |
| IC501    | CNC1S101S1KT  | IC, LINEAR                 | △       |
| IC502    | CNC1S101R1KT  | IC, LINEAR ( A,B,C,D,E,F ) | △       |
| IC502    | CNC1S101R2KT  | IC, LINEAR ( G,H,I )       | △       |
| IC801    | C5HABZZ00051  | IC, LINEAR                 | △       |
| IC1001   | CNC1S101R1KT  | IC, LINEAR                 | △       |
| IC1001   | CNC1S101S1KT  | IC, LINEAR                 | △       |
| IC1002   | C0DAEMZ00005  | IC, LINEAR                 |         |
| IC1002   | B1AZKD000001  | IC, LINEAR                 |         |
| IC1002   | C0DAEMZ00001  | IC, LINEAR                 |         |
| IC3001   | AN3479FBP-A   | IC, LINEAR                 |         |
| IC3201   | MN3885S       | IC, CCD 1H DELAY           | E.S.D.  |
| IC4501   | CLAA000000652 | IC, LINEAR                 |         |
| IC5301   | ANL5167A-VT   | IC, LINEAR                 |         |
| IC6001   | MN101D06FCC   | IC, 8BIT MICROCONTROLLER   | E.S.D.  |
| IC6002   | B3NAA0000049  | PHOTO INTERRUPTER          |         |
| IC6003   | B3NAA0000049  | PHOTO INTERRUPTER          |         |
| IC6004   | LSSK0026      | IC, 1K EEP ROM             | E.S.D.  |
| IC6005   | C0EBJ0000080  | IC, CMOS STANDARD LOGIC    | E.S.D.  |
| IC6005   | C0EBJ0000099  | IC, CMOS STANDARD LOGIC    | E.S.D.  |
| IC6005   | RN5VS47CA-TR  | IC, CMOS STANDARD LOGIC    | E.S.D.  |

### TRANSISTORS

| Ref. No. | Part No.     | Part Name & Description           | Remarks |
|----------|--------------|-----------------------------------|---------|
| Q431     | 2SA733-TQ    | TRANSISTOR SI PNP                 |         |
| Q431     | 2SA1175      | TRANSISTOR SI PNP                 |         |
| Q431     | 2SA1175-TH   | TRANSISTOR SI PNP                 |         |
| Q501     | B1AACN000013 | TRANSISTOR SI NPN                 |         |
| Q531     | 2SA733-TQ    | TRANSISTOR SI PNP                 |         |
| Q531     | 2SA1175      | TRANSISTOR SI PNP                 |         |
| Q531     | 2SA1175-TH   | TRANSISTOR SI PNP                 |         |
| Q532     | 2SC945A-TQ   | TRANSISTOR SI NPN                 |         |
| Q532     | 2SC2785-TH   | TRANSISTOR SI NPN                 |         |
| Q532     | 2SC2785-TJ   | TRANSISTOR SI NPN                 |         |
| Q551     | B1BAET000006 | TRANSISTOR SI NPN ( A,B,C,D,E,F ) | △       |
| Q551     | B1GARRAB0001 | TRANSISTOR SI NPN ( G,H,I )       | △       |
| Q571     | 2SD0601A0L   | TRANSISTOR SI NPN CHIP            |         |
| Q571     | B1ABCF000011 | TRANSISTOR SI NPN CHIP            |         |
| Q571     | B1ABCF000106 | TRANSISTOR SI NPN CHIP            |         |
| Q571     | B1ABCF000107 | TRANSISTOR SI NPN CHIP            |         |
| Q581     | B1ACBM000001 | TRANSISTOR SI NPN                 |         |
| Q581     | 2SA17670QA   | TRANSISTOR SI PNP CHIP            |         |
| Q581     | 2SB12210QA   | TRANSISTOR SI PNP CHIP            |         |
| Q801     | 2SC945A-TKA  | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC1684-Q    | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC1684-S    | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC16840RA   | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC2785-TE   | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC2785-TF   | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC2785-TH   | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC2785-TJ   | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC2785-TK   | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC3311AQA   | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC3311ARA   | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC3311ASA   | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC945A-TPA  | TRANSISTOR SI NPN                 |         |
| Q801     | 2SC945A-TQA  | TRANSISTOR SI NPN                 |         |
| Q1001    | 2SC4953001KT | TRANSISTOR SI NPN                 | △       |
| Q1001    | B1BADP000012 | TRANSISTOR SI NPN                 | △       |
| Q1001    | 2SC4533003KT | TRANSISTOR SI NPN                 | △       |
| Q1001    | 2SC5842001KT | TRANSISTOR SI NPN                 | △       |
| Q1002    | 2SD225900A   | TRANSISTOR SI NPN                 |         |
| Q1051    | B1BACC000010 | TRANSISTOR SI PNP CHIP            |         |
| Q1051    | 2SD1581-T    | TRANSISTOR SI NPN                 |         |
| Q1052    | 2SD0601AHL   | TRANSISTOR SI NPN CHIP            |         |
| Q1052    | B1ABCF000011 | TRANSISTOR SI NPN CHIP            |         |
| Q1052    | B1ABCF000106 | TRANSISTOR SI NPN CHIP            |         |
| Q1053    | 2SD235800A   | TRANSISTOR SI NPN CHIP            |         |
| Q1053    | B1AAQB000002 | TRANSISTOR SI NPN CHIP            |         |
| Q3001    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP            |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| Q3001    | BLADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q3001    | BLADCF000075 | TRANSISTOR SI PNP CHIP  |         |
| Q3001    | BLADCF000076 | TRANSISTOR SI PNP CHIP  |         |
| Q3002    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q3002    | BLABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q3002    | BLABCF000111 | TRANSISTOR SI NPN CHIP  |         |
| Q3002    | BLABCF000112 | TRANSISTOR SI NPN CHIP  |         |
| Q3301    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q3301    | BLABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q3301    | BLABCF000111 | TRANSISTOR SI NPN CHIP  |         |
| Q3301    | BLABCF000112 | TRANSISTOR SI NPN CHIP  |         |
| Q4001    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q4001    | BLADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q4001    | BLADCF000075 | TRANSISTOR SI PNP CHIP  |         |
| Q4001    | BLADCF000076 | TRANSISTOR SI PNP CHIP  |         |
| Q4002    | 2SD1819AHL   | TRANSISTOR SI NPN CHIP  |         |
| Q4002    | BLABCF000112 | TRANSISTOR SI NPN CHIP  |         |
| Q4003    | 2SD1819AHL   | TRANSISTOR SI NPN CHIP  |         |
| Q4003    | BLABCF000112 | TRANSISTOR SI NPN CHIP  |         |
| Q4101    | 2SD0601ARL   | TRANSISTOR SI NPN CHIP  |         |
| Q4171    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q4171    | BLABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q4171    | BLABCF000106 | TRANSISTOR SI NPN CHIP  |         |
| Q4171    | BLABCF000107 | TRANSISTOR SI NPN CHIP  |         |
| Q5301    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q5301    | BLABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q5301    | BLABCF000111 | TRANSISTOR SI NPN CHIP  |         |
| Q5301    | BLABCF000112 | TRANSISTOR SI NPN CHIP  |         |
| Q5901    | 2SD225900A   | TRANSISTOR SI NPN       |         |
| Q6001    | 2SB0709A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q6001    | BLADCF000001 | TRANSISTOR SI PNP CHIP  |         |
| Q6002    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q6002    | BLABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q6003    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q6003    | BLABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q6004    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q6004    | BLADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q6005    | 2SB0709A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q6005    | BLADCF000001 | TRANSISTOR SI PNP CHIP  |         |
| Q6006    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q6009    | VEKS5707     | PHOTO SENSOR UNIT       |         |
| Q6010    | VEKS5707     | PHOTO SENSOR UNIT       |         |

## DIODES

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D401     | B0EAKL000049 | DIODE SI                |         |
| D401     | B0EAKL000044 | DIODE SI                |         |
| D401     | B0EAKL000045 | DIODE SI                |         |
| D502     | MA2C165001VT | DIODE SI                |         |
| D502     | B0AACK000004 | DIODE SI                |         |
| D502     | 1SS119       | DIODE SI                |         |
| D503     | B0HAGP000011 | DIODE SI                |         |
| D503     | B0HAJP000012 | DIODE SI                |         |
| D504     | MAZ40470MF   | DIODE ZENER 4.7V        |         |
| D504     | MAZ40470HF   | DIODE ZENER 4.7V        |         |
| D504     | RD4.7ESAB    | DIODE ZENER 4.7V        |         |
| D504     | RD4.7ESAB2   | DIODE ZENER 4.7V        |         |
| D504     | 04AZ4.7ZTPA7 | DIODE ZENER 4.7V        |         |
| D507     | MA2C165001VT | DIODE SI                |         |
| D507     | B0AACK000004 | DIODE SI                |         |
| D507     | 1SS119       | DIODE SI                |         |
| D553     | B0HAGP000011 | DIODE SI                |         |
| D553     | B0HAJP000012 | DIODE SI                |         |
| D554     | B0AAEL000001 | DIODE SI                |         |
| D554     | MA2C16700E   | DIODE SI                |         |
| D556     | MA2C18500E   | DIODE SI                |         |
| D558     | B0HAGP000011 | DIODE SI                |         |
| D558     | B0HAJP000012 | DIODE SI                |         |
| D560     | ERB44-04V    | DIODE SI                |         |
| D571     | MAZ40470MF   | DIODE ZENER 4.7V        |         |
| D571     | B0BA4R600003 | DIODE ZENER 4.7V        |         |
| D571     | RD4.7ESAB2   | DIODE ZENER 4.7V        |         |
| D572     | MAZ4110NHF   | DIODE ZENER 11V         |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D573     | MA2C165001VT | DIODE SI                |         |
| D573     | B0AACK000004 | DIODE SI                |         |
| D573     | 1SS119       | DIODE SI                |         |
| D574     | MA2C165001VT | DIODE SI                |         |
| D574     | B0AACK000004 | DIODE SI                |         |
| D574     | 1SS119       | DIODE SI                |         |
| D591     | D4DDF5R00002 | THERMISTOR              | △       |
| D591     | VRPSKF5JM050 | THERMISTOR              | △       |
| D801     | B0AAKT000010 | DIODE SI                | △       |
| D801     | B0AAKT000009 | DIODE SI                | △       |
| D801     | B0EAKT000007 | DIODE SI                | △       |
| D801     | B0EAKT000027 | DIODE SI                | △       |
| D801     | B0EAKT000030 | DIODE SI                | △       |
| D801     | B0EALT000004 | DIODE SI                | △       |
| D802     | B0AAKT000010 | DIODE SI                | △       |
| D802     | B0AAKT000009 | DIODE SI                | △       |
| D802     | B0EAKT000007 | DIODE SI                | △       |
| D802     | B0EAKT000027 | DIODE SI                | △       |
| D802     | B0EAKT000030 | DIODE SI                | △       |
| D802     | B0EALT000004 | DIODE SI                | △       |
| D803     | B0AAKT000010 | DIODE SI                | △       |
| D803     | B0AAKT000009 | DIODE SI                | △       |
| D803     | B0EAKT000007 | DIODE SI                | △       |
| D803     | B0EAKT000027 | DIODE SI                | △       |
| D803     | B0EAKT000030 | DIODE SI                | △       |
| D803     | B0EALT000004 | DIODE SI                | △       |
| D804     | B0AAKT000010 | DIODE SI                | △       |
| D804     | B0AAKT000009 | DIODE SI                | △       |
| D804     | B0EAKT000007 | DIODE SI                | △       |
| D804     | B0EAKT000027 | DIODE SI                | △       |
| D804     | B0EAKT000030 | DIODE SI                | △       |
| D804     | B0EALT000004 | DIODE SI                | △       |
| D805     | MA2C16700E   | DIODE SI                |         |
| D805     | B0AAEL000001 | DIODE SI                |         |
| D881     | ERZV10V361CS | SURGE ABSORBER          | △       |
| D881     | D4EAA3610001 | SURGE ABSORBER          | △       |
| D882     | ERZV10V361CS | SURGE ABSORBER          | △       |
| D882     | D4EAA3610001 | SURGE ABSORBER          | △       |
| D1001    | DB105G       | DIODE SI                | △       |
| D1001    | B0EBKR000003 | DIODE SI                | △       |
| D1001    | B0EBKR000020 | DIODE SI                | △       |
| D1001    | B0EBKR000024 | DIODE SI                | △       |
| D1002    | B0HAHP000014 | DIODE SI                |         |
| D1002    | B0HAJP000007 | DIODE SI                |         |
| D1002    | B0HAMP000061 | DIODE SI                |         |
| D1002    | B0HAMP000069 | DIODE SI                |         |
| D1003    | B0HAHP000014 | DIODE SI                |         |
| D1003    | B0HAJP000007 | DIODE SI                |         |
| D1003    | B0HAMP000061 | DIODE SI                |         |
| D1003    | B0HAMP000069 | DIODE SI                |         |
| D1005    | B0HAHP000014 | DIODE SI                |         |
| D1005    | B0HAJP000007 | DIODE SI                |         |
| D1005    | B0HAMP000061 | DIODE SI                |         |
| D1005    | B0HAMP000069 | DIODE SI                |         |
| D1006    | B0HAML000015 | DIODE SI                |         |
| D1006    | B0HANL000012 | DIODE SI                |         |
| D1008    | B0JAME000079 | DIODE SI                |         |
| D1008    | B0JAME000049 | DIODE SI                |         |
| D1008    | B0JANE000011 | DIODE SI                |         |
| D1008    | B0JANE000022 | DIODE SI                |         |
| D1015    | MA2180LA     | DIODE ZENER 18V         | △       |
| D1015    | B0BA01800025 | DIODE ZENER 18V         | △       |
| D1015    | 1N4746A-T    | DIODE ZENER 18V         | △       |
| D1015    | 1N4746ARL    | DIODE ZENER 18V         | △       |
| D1016    | MA2C165001VT | DIODE SI                |         |
| D1016    | B0AACK000004 | DIODE SI                |         |
| D1016    | 1SS119       | DIODE SI                |         |
| D1051    | MAZ4110NHF   | DIODE ZENER 11V         |         |
| D4171    | MA2C165001VT | DIODE SI                |         |
| D4171    | B0AACK000004 | DIODE SI                |         |
| D4171    | 1SS119       | DIODE SI                |         |
| D4528    | MAZ40390HF   | DIODE ZENER 3.9V        |         |
| D4591    | MAZ41100LF   | DIODE ZENER 11V         |         |



| Ref. No. | Part No.     | Part Name & Description     | Remarks |
|----------|--------------|-----------------------------|---------|
| D4591    | MAZ4110NHF   | DIODE ZENER 11V             |         |
| D4592    | MAZ41100LF   | DIODE ZENER 11V             |         |
| D4592    | MAZ4110NHF   | DIODE ZENER 11V             |         |
| D5501    | MAZ40620L1KT | DIODE ZENER 6.2V            | △       |
| D5602    | MA2C165001VT | DIODE SI                    |         |
| D5602    | B0AACK000004 | DIODE SI                    |         |
| D5602    | 1S8119       | DIODE SI                    |         |
| D5603    | MA2C165001VT | DIODE SI                    |         |
| D5603    | B0AACK000004 | DIODE SI                    |         |
| D5603    | 1S8119       | DIODE SI                    |         |
| D6001    | VER55708     | SENSOR LED UNIT             |         |
| D6003    | MA2C165001VT | DIODE SI                    |         |
| D6003    | B0AACK000004 | DIODE SI                    |         |
| D6003    | 1S8119       | DIODE SI                    |         |
| D6005    | MA2C165001VT | DIODE SI                    |         |
| D6005    | B0AACK000004 | DIODE SI                    |         |
| D6005    | 1S8119       | DIODE SI                    |         |
| D6301    | B3AAA0000538 | LIGHT EMITTING DIODE RED    |         |
| D6302    | B3ACA0000192 | LIGHT EMITTING DIODE ORANGE |         |
| D6303    | B3ABA0000400 | LIGHT EMITTING DIODE GREEN  |         |

## RESISTORS

| Ref. No. | Part No.     | Part Name & Description                        | Remarks |
|----------|--------------|--|---------|
| R401     | ERDS2TJ821   | CARBON 1/4W 820 ( A,B,C,D,E,F )                |         |
| R401     | ERDS2TJ471   | CARBON 1/4W 470 ( G,H,I )                      |         |
| R402     | ERJ6GEYJ183V | MGF CHIP 1/10W 18K ( A,B,C,D,E,F )             |         |
| R402     | ERJ6GEYJ223V | MGF CHIP 1/10W 22K ( G,H,I )                   |         |
| R409     | ERJ6GEYJ273V | MGF CHIP 1/10W 27K ( A,B,C,D,E,F )             |         |
| R409     | ERJ6GEYJ333V | MGF CHIP 1/10W 33K ( G,H,I )                   |         |
| R410     | ERDS2TJ152   | CARBON 1/4W 1.5K ( A,B,C,D,E,F )               |         |
| R410     | ERDS2TJ392   | CARBON 1/4W 3.9K ( G,H,I )                     |         |
| R411     | ERJ6GEYJ823V | MGF CHIP 1/10W 82K                             |         |
| R413     | ERJ6GEYJ183V | MGF CHIP 1/10W 18K ( A,B,C,D,E,F )             |         |
| R413     | ERJ6GEYJ273V | MGF CHIP 1/10W 27K ( G,H,I )                   |         |
| R414     | ERDS1FJ2R2   | CARBON 1/2W 2.2 ( A,B,C,D,E,F )                | △       |
| R414     | ERDS1FJ1R2P  | CARBON 1/2W 1.2 ( G,H,I )                      | △       |
| R422     | ERD25FJ101P  | CARBON 1/4W 100                                | △       |
| R427     | ERQ14ZJ1R5P  | FUSE 1/4W 1.5 ( A,B,C,D,E,F )                  | △       |
| R427     | ERQ14AJ5R6P  | FUSE 1/4W 5.6 ( G,H,I )                        | △       |
| R431     | ERJ6GEYJ103V | MGF CHIP 1/10W 10K                             |         |
| R432     | ERJ6GEYJ473V | MGF CHIP 1/10W 47K ( A,B,C,D,E,F )             |         |
| R432     | ERJ6GEYJ563V | MGF CHIP 1/10W 56K ( G,H,I )                   |         |
| R433     | ERJ6GEYJ153V | MGF CHIP 1/10W 15K                             |         |
| R434     | ERDS2TJ103   | CARBON 1/4W 10K                                |         |
| R435     | ERJ6GEYJ102V | MGF CHIP 1/10W 1K                              |         |
| R436     | ERJ6GEYJ104V | MGF CHIP 1/10W 100K                            |         |
| R466     | ERJ6GEYJ683V | MGF CHIP 1/10W 68K                             |         |
| R468     | ERJ6GEYJ102V | MGF CHIP 1/10W 1K                              |         |
| R471     | ERDS1FJ152P  | CARBON 1/2W 1.5K                               | △       |
| R472     | ERDS2TJ332   | CARBON 1/4W 3.3K                               |         |
| R480     | ERDS2TJ332   | CARBON 1/4W 3.3K ( G,H,I )                     |         |
| R501     | ERJ6GEYJ471V | MGF CHIP 1/10W 470                             |         |
| R502     | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K                            |         |
| R503     | EROS2THF9101 | PRECISION METAL FILM 1/4W 9.1K ( A,B,C,D,E,F ) | △       |
| R503     | EROS2TKF9101 | PRECISION METAL FILM 1/4W 9.1K ( A,B,C,D,E,F ) | △       |
| R503     | VRESR4TF9101 | PRECISION METAL FILM 1/4W 9.1K ( A,B,C,D,E,F ) | △       |
| R503     | EROS2THF8201 | PRECISION METAL FILM 1/4W 8.2K ( G,H,I )       | △       |
| R503     | EROS2TKF8201 | PRECISION METAL FILM 1/4W 8.2K ( G,H,I )       | △       |
| R503     | VRESR4TF8201 | PRECISION METAL FILM 1/4W 8.2K ( G,H,I )       | △       |
| R504     | ERJ6GEY0R00V | MGF CHIP 1/10W 0                               |         |
| R505     | ERDS2TJ561   | CARBON 1/4W 560                                |         |
| R509     | ERDS2TJ101   | CARBON 1/4W 100                                |         |

| Ref. No. | Part No.     | Part Name & Description            | Remarks |
|----------|--------------|------------------------------------|---------|
| R511     | ERG2ANJ222H  | METAL OXIDE 2W 2.2K                |         |
| R516     | LAR05272J09  | W FLMPRF 5W 2.7K ( A,B,C,D,E,F )   |         |
| R516     | LAR05222J09  | W FLMPRF 5W 2.2K ( G,H,I )         |         |
| R517     | ERDS2TJ472   | CARBON 1/4W 4.7K                   |         |
| R519     | ERDS2TJ123   | CARBON 1/4W 12K                    |         |
| R520     | ERDS2TJ562   | CARBON 1/4W 5.6K                   |         |
| R525     | ERDS2TJ122   | CARBON 1/4W 1.2K                   |         |
| R529     | ERDS2TJ103   | CARBON 1/4W 10K                    |         |
| R531     | ERDS2TJ223   | CARBON 1/4W 22K                    |         |
| R533     | ERDS2TJ332   | CARBON 1/4W 3.3K ( A,B,C,D,E,F )   |         |
| R533     | ERDS2TJ152   | CARBON 1/4W 1.5K ( G,H,I )         |         |
| R534     | ERDS2TJ681   | CARBON 1/4W 680                    |         |
| R535     | ERDS2TJ471   | CARBON 1/4W 470                    |         |
| R536     | ERG2ANJ153H  | METAL OXIDE 2W 15K                 |         |
| R536     | ERG2ANJP153H | METAL OXIDE 2W 15K                 |         |
| R537     | ERG2ANJ153H  | METAL OXIDE 2W 15K                 |         |
| R537     | ERG2ANJP153H | METAL OXIDE 2W 15K                 |         |
| R538     | ERDS2TJ473   | CARBON 1/4W 47K                    |         |
| R539     | ERDS2TJ473   | CARBON 1/4W 47K                    |         |
| R540     | ERDS2TJ562   | CARBON 1/4W 5.6K                   |         |
| R541     | ERDS2TJ222   | CARBON 1/4W 2.2K                   |         |
| R542     | ERDS2TJ473   | CARBON 1/4W 47K                    |         |
| R543     | ERDS2TJ102   | CARBON 1/4W 1K                     |         |
| R544     | ERDS2TJ101   | CARBON 1/4W 100                    |         |
| R545     | ERDS2TJ152   | CARBON 1/4W 1.5K                   |         |
| R546     | ERDS2TJ223   | CARBON 1/4W 22K                    |         |
| R552     | ERDS2TJ472   | CARBON 1/4W 4.7K                   |         |
| R553     | ERDS2TJ102   | CARBON 1/4W 1K                     |         |
| R554     | ERDS2TJ103   | CARBON 1/4W 10K ( A,B,C,D,E,F )    |         |
| R554     | ERDS2TJ123   | CARBON 1/4W 12K ( G,H,I )          |         |
| R555     | ERDS2TJ154   | CARBON 1/4W 150K ( A,B,C,D,E,F )   |         |
| R555     | ERDS2TJ823   | CARBON 1/4W 82K ( G,H,I )          |         |
| R556     | ERDS2TJ823   | CARBON 1/4W 82K                    |         |
| R557     | ERG2S9J471H  | METAL OXIDE 2W 470 ( A,B,C,D,E,F ) |         |
| R557     | ERG2S9J331H  | METAL OXIDE 2W 330 ( G,H,I )       |         |
| R558     | ERG2ANJ471H  | METAL OXIDE 2W 470 ( A,B,C,D,E,F ) |         |
| R558     | ERG2ANJ561H  | METAL OXIDE 2W 560 ( G,H,I )       |         |
| R559     | ERDS2TJ123   | CARBON 1/4W 12K ( G,H,I )          |         |
| R561     | ERQ1CJP2R2S  | FUSE 1W 2.2 ( A,B,C,D,E,F )        | △       |
| R561     | ERQ1CKPR47S  | FUSE 1W 0.47 ( G,H,I )             | △       |
| R562     | ERF2AK3R9P   | W FLMPRF 2W 3.9 ( G,H,I )          |         |
| R571     | ERDS2TJ101   | CARBON 1/4W 100                    |         |
| R572     | ERJ6GEYJ331V | MGF CHIP 1/10W 330                 |         |
| R573     | ERDS2TJ221   | CARBON 1/4W 220                    |         |
| R574     | ERJ6GEYJ273V | MGF CHIP 1/10W 27K                 |         |
| R581     | ERDS1FJ2R2   | CARBON 1/2W 2.2 ( A,B,C,D,E,F )    | △       |
| R581     | ERDS1FJ1R5P  | CARBON 1/2W 1.5 ( G,H,I )          | △       |
| R582     | ERDS1FJ3R9P  | CARBON 1/2W 3.9 ( A,B,C,D,E,F )    | △       |
| R582     | ERDS1FJ1R5P  | CARBON 1/2W 1.5 ( G,H,I )          | △       |
| R584     | ERDS2TJ562   | CARBON 1/4W 5.6K ( A,B,C,D,E,F )   |         |
| R584     | ERDS2TJ272   | CARBON 1/4W 2.7K ( G,H,I )         |         |
| R585     | ERDS2TJ473   | CARBON 1/4W 47K                    |         |
| R586     | ERDS2TJ393   | CARBON 1/4W 39K                    |         |
| R801     | ERF3AKR82    | W FLMPRF 3W 0.82                   | △       |
| R802     | ERDS1FJ103P  | CARBON 1/2W 10K                    | △       |
| R802     | ERDS1FPJ103  | CARBON 1/2W 10K                    | △       |
| R804     | ERF10ZJ331   | W FLMPRF 10W 330 ( A,B,C,D,E,F )   |         |
| R804     | ERF15ZJ181   | W FLMPRF 15W 180 ( G,H,I )         |         |
| R805     | ERDS2TJ104   | CARBON 1/4W 100K                   |         |
| R806     | ERQ14AJ470P  | FUSE 1/4W 47                       | △       |
| R810     | ERDS2TJ103   | CARBON 1/4W 10K                    |         |
| R813     | ERDS2TJ104   | CARBON 1/4W 100K                   |         |
| R818     | VRESC2TK825T | CARBON 1/2W 8.2M                   | △       |
| R865     | ERDS2TJ222   | CARBON 1/4W 2.2K                   |         |
| R1003    | D0AF334JA038 | CARBON 1/2W 330K                   |         |

| Ref. No. | Part No.     | Part Name & Description               | Remarks |
|----------|--------------|---------------------------------------|---------|
| R1004    | ERG2SJ333H   | METAL OXIDE 2W 33K                    |         |
| R1005    | ERGLSJ560P   | METAL OXIDE 1W 56                     |         |
| R1006    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K                   |         |
| R1007    | ERDS2TJ101   | CARBON 1/4W 100                       |         |
| R1008    | ERDS2TJ392   | CARBON 1/4W 3.9K                      |         |
| R1010    | ERD25FJ100P  | CARBON 1/4W 10                        | △       |
| R1010    | ERD25FPJ100P | CARBON 1/4W 10                        | △       |
| R1010    | VRESF4FJ100P | CARBON 1/4W 10                        | △       |
| R1014    | ERJ6GEYJ221V | MGF CHIP 1/10W 220                    |         |
| R1015    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K                   |         |
| R1016    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K                     |         |
| R1017    | D1BD2431A016 | MGF CHIP 1/10W 2.43K                  |         |
| R1018    | DOHD222ZA002 | MGF CHIP 1/10W 2.2K                   |         |
| R1025    | ERDS2TJ300T  | CARBON 1/4W 30                        |         |
| R1026    | ERDS2TJ300T  | CARBON 1/4W 30                        |         |
| R1051    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K                   |         |
| R1052    | ERDS2TJ153   | CARBON 1/4W 15K                       |         |
| R1053    | ERDS2TJ153   | CARBON 1/4W 15K                       |         |
| R1057    | ERDS2TJ331   | CARBON 1/4W 330                       |         |
| R1058    | ERJ6GEYJ104V | MGF CHIP 1/10W 100K                   |         |
| R3001    | ERDS2TJ101   | CARBON 1/4W 100                       |         |
| R3006    | ERDS2TJ101   | CARBON 1/4W 100                       |         |
| R3016    | ERJ6GEYJ121V | MGF CHIP 1/10W 120                    |         |
| R3017    | ERJ6GEYJ331V | MGF CHIP 1/10W 330                    |         |
| R3024    | ERJ6GEYJ471V | MGF CHIP 1/10W 470                    |         |
| R3025    | ERJ6GEYJ125V | MGF CHIP 1/10W 1.2M                   |         |
| R3026    | ERJ6GEYJ474V | MGF CHIP 1/10W 470K                   |         |
| R3028    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K                   |         |
| R3029    | ERJ6GEYJ151V | MGF CHIP 1/10W 150                    |         |
| R3032    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K                   |         |
| R3035    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K                    |         |
| R3036    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K                     |         |
| R3037    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K                     |         |
| R3038    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K                   |         |
| R3044    | ERJ6GEYG562V | MGF CHIP ( A,B,C,D,G,H,I )            |         |
| R3045    | ERJ6GEYG222V | MGF CHIP 1/10W 2.2K ( A,B,C,D,G,H,I ) |         |
| R3047    | ERJ6GEYGL02V | MGF CHIP 1/10W 1K ( A,B,C,D,G,H,I )   |         |
| R3077    | ERJ6GEYJ101V | MGF CHIP 1/10W 100                    |         |
| R3084    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K                     |         |
| R3086    | ERJ6GEYJ221V | MGF CHIP 1/10W 220                    |         |
| R3091    | ERJ6GEYJ750V | MGF CHIP 1/10W 75                     |         |
| R3301    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K                   |         |
| R3302    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K                    |         |
| R3303    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K                   |         |
| R4001    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K                    |         |
| R4002    | ERJ6GEYJ334V | MGF CHIP 1/10W 330K                   |         |
| R4003    | ERJ6GEYJ221V | MGF CHIP 1/10W 220                    |         |
| R4004    | ERJ6GEYJ333V | MGF CHIP 1/10W 33K                    |         |
| R4005    | ERJ6GEYJ225V | MGF CHIP 1/10W 2.2M                   |         |
| R4006    | ERJ6GEYJ681V | MGF CHIP 1/10W 680                    |         |
| R4007    | ERJ6GEYJ821V | MGF CHIP 1/10W 820                    |         |
| R4008    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K                    |         |
| R4009    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K                    |         |
| R4010    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K                    |         |
| R4011    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K                   |         |
| R4012    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K                   |         |
| R4014    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K                   |         |
| R4015    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K                   |         |
| R4018    | ERJ6GEYJ123V | MGF CHIP 1/10W 12K                    |         |
| R4021    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K                    |         |
| R4101    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K                    |         |
| R4102    | ERJ6GEYJ154V | MGF CHIP 1/10W 150K                   |         |
| R4103    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K                    |         |
| R4172    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K                     |         |
| R4175    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K                     |         |
| R4502    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K                     |         |
| R4504    | ERJ6GEYJ823V | MGF CHIP 1/10W 82K                    |         |
| R4509    | ERDS2TJ100   | CARBON 1/4W 10                        |         |
| R4521    | ERQ1ABJP4R7S | FUSE 1W 4.7                           | △       |
| R4523    | ERJ6GEY0R00V | MGF CHIP 1/10W 0                      |         |
| R4591    | ERDS2TJ681   | CARBON 1/4W 680                       |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R4592    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4593    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4594    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4701    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R5301    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R5304    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R5305    | ERJ6GEYJ224V | MGF CHIP 1/10W 220K     |         |
| R5306    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R5308    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R5309    | ERJ6GEYJ274V | MGF CHIP 1/10W 270K     |         |
| R5311    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R5312    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R5313    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R5314    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R5315    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R5316    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R5317    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R5324    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5401    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R5402    | ERJ6GEYJ394V | MGF CHIP 1/10W 390K     |         |
| R5403    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R5405    | ERJ6GEYJ822V | MGF CHIP 1/10W 8.2K     |         |
| R5406    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5501    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R5502    | ERJ6GEYJ394V | MGF CHIP 1/10W 390K     |         |
| R5503    | ERDS2TJ471   | CARBON 1/4W 470         |         |
| R5504    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5505    | ERJ6ENF3241V | MGF CHIP 1/10W 3.24K    | △       |
| R5506    | ERDS2TJ473   | CARBON 1/4W 47K         |         |
| R5508    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R5510    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5511    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R5512    | ERDS2TJ151   | CARBON 1/4W 150         |         |
| R5513    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5601    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R5604    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R5611    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R5612    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R5614    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R5902    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R5932    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5933    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6001    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6002    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6003    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6004    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6005    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6007    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6008    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6014    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6015    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6016    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6017    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6018    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6019    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R6021    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6022    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R6023    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6024    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6025    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |
| R6026    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6028    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R6029    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6030    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6032    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R6035    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6040    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6041    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6042    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6044    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6045    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6046    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6049    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |

| Ref. No. | Part No.     | Part Name & Description    | Remarks |
|----------|--------------|----------------------------|---------|
| R6050    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K          |         |
| R6053    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K        |         |
| R6054    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K          |         |
| R6055    | ERJ6GEYJ101V | MGF CHIP 1/10W 100         |         |
| R6057    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K          |         |
| R6058    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K          |         |
| R6059    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K        |         |
| R6060    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K          |         |
| R6061    | ERJ6GEYJ101V | MGF CHIP 1/10W 100         |         |
| R6062    | ERJ6GEYJ101V | MGF CHIP 1/10W 100         |         |
| R6063    | ERJ6GEYJ101V | MGF CHIP 1/10W 100         |         |
| R6064    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K         |         |
| R6066    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K          |         |
| R6067    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K          |         |
| R6077    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K         |         |
| R6078    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K          |         |
| R6080    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K        |         |
| R6081    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K        |         |
| R6082    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K         |         |
| R6090    | ERJ6GEYJ471V | MGF CHIP 1/10W 470         |         |
| R6091    | ERJ6GEYJ471V | MGF CHIP 1/10W 470         |         |
| R6092    | ERJ6GEYJ471V | MGF CHIP 1/10W 470         |         |
| R6098    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K         |         |
| R6099    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K ( E,F ) |         |
| R6100    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K ( E,F ) |         |
| R6113    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K        |         |
| R6114    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K        |         |
| R6115    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K         |         |
| R6116    | ERDS2TJ101   | CARBON 1/4W 100            |         |
| R6118    | ERJ6GEYJ104V | MGF CHIP 1/10W 100K        |         |
| R6119    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K         |         |
| R6120    | ERJ6GEYJ104V | MGF CHIP 1/10W 100K        |         |
| R6121    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K         |         |
| R6122    | ERJ6GEYJ181V | MGF CHIP 1/10W 180         |         |
| R6123    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K         |         |
| R6124    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K         |         |
| R6126    | ERJ6GEYJ221V | MGF CHIP 1/10W 220         |         |
| R6127    | ERJ6GEYJ221V | MGF CHIP 1/10W 220         |         |
| R6130    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K         |         |
| R6131    | ERJ6GEYJ183V | MGF CHIP 1/10W 18K         |         |
| R6132    | ERJ6GEYJ391V | MGF CHIP 1/10W 390         |         |
| R6133    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K         |         |
| R6134    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K         |         |
| R6135    | ERJ6GEYJ475V | MGF CHIP 1/10W 4.7M        |         |
| R6136    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K        |         |
| R6137    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K        |         |
| R6138    | ERDS2TJ560T  | CARBON 1/4W 56             |         |
| R6142    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K        |         |
| R6143    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K         |         |
| R6144    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K        |         |
| R6145    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K         |         |
| R6146    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K ( E,F ) |         |
| R6149    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K         |         |
| R6150    | ERJ6GEYJ913V | MGF CHIP 1/10W 91K         |         |
| R6160    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K        |         |
| R6161    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K        |         |
| R6162    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K        |         |
| R6163    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K        |         |
| R6164    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K        |         |
| R6165    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K        |         |
| R6166    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K         |         |
| R6170    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K          |         |
| R6201    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K         |         |
| R6202    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K         |         |
| R6203    | ERJ6GEYJ274V | MGF CHIP 1/10W 270K        |         |
| R6204    | ERJ6GEYJ184V | MGF CHIP 1/10W 180K        |         |
| R6205    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K         |         |
| R6207    | ERJ6GEYJ101V | MGF CHIP 1/10W 100         |         |
| R6208    | ERJ6GEYJ152V | MGF CHIP 1/10W 1.5K        |         |
| R6209    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K        |         |
| R6210    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K         |         |
| R6211    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K         |         |
| R6212    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K        |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R6301    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6302    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R6303    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6304    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R6305    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6306    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R6307    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6316    | ERJ6GEYOR00V | MGF CHIP 1/10W 0        |         |
| R7001    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7002    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7003    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7004    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7006    | ERJ6GEYJ271V | MGF CHIP 1/10W 270      |         |
| R7007    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |

## CAPACITORS

| Ref. No. | Part No.     | Part Name & Description                 | Remarks |
|----------|--------------|---|---------|
| C401     | ECEA1HGE2R2  | ELECTROLYTIC 50V 2.2UF                  |         |
| C402     | ECA1CM471B   | ELECTROLYTIC 16V 470UF                  |         |
| C408     | ECA1HGE010KB | ELECTROLYTIC 50V 1UF                    |         |
| C409     | ECA1VM101B   | ELECTROLYTIC 35V 100UF                  |         |
| C413     | ECQB1H104KF  | POLYESTER 50V 0.1UF                     |         |
| C414     | ECA1EM102E   | ELECTROLYTIC 25V 1000UF                 |         |
| C418     | ECA1VM221B   | ELECTROLYTIC 35V 220UF                  |         |
| C459     | ECJ2VB1H103K | C CHIP 50V 0.01UF                       |         |
| C510     | ECKR2H681KB5 | CERAMIC 500V 680PF ( A,B,C,D,E,F )      |         |
| C510     | ECKR2H102KB5 | CERAMIC 500V 1000PF ( G,H,I )           |         |
| C513     | ECA1HM470B   | ELECTROLYTIC 50V 47UF                   |         |
| C524     | ECKC3D151KBP | CERAMIC 2KV 150PF ( A,B,C,D,E,F )       | ( △ )   |
| C524     | ECKW3D151KBP | CERAMIC 2KV 150PF ( A,B,C,D,E,F )       | ( △ )   |
| C531     | ECEA1HKA3R3I | ELECTROLYTIC 50V 3.3UF                  |         |
| C533     | ECA1EM101B   | ELECTROLYTIC 25V 100UF                  |         |
| C534     | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF                  |         |
| C552     | ECA1EM221B   | ELECTROLYTIC 25V 220                    |         |
| C553     | ECKR2H471KB5 | CERAMIC 500V 470PF                      |         |
| C554     | ECWH12H622JS | POLYESTER 1.2KV 0.062UF ( A,B,C,D,E,F ) | ( △ )   |
| C554     | LSCFN12622JB | POLYESTER 1.2KV 0.062UF ( A,B,C,D,E,F ) | ( △ )   |
| C554     | ECWH16622JVB | POLYESTER 1250V 0.062UF ( A,B,C,D,E,F ) | ( △ )   |
| C554     | F0A3C622A002 | POLYESTER 1250V 0.062UF ( A,B,C,D,E,F ) | ( △ )   |
| C554     | ECWH12H912JS | POLYESTER 1.2KV 0.092UF ( G,H,I )       | ( △ )   |
| C554     | F0A3C912A002 | POLYESTER 1.2KV 0.092UF ( G,H,I )       | ( △ )   |
| C556     | ECWF2334JBB  | POLYESTER 500V 0.33UF ( A,B,C,D )       | ( △ )   |
| C556     | F0C2E334A049 | POLYESTER 250V 0.36UF ( A,B,C,D )       | ( △ )   |
| C556     | ECWF2434JBB  | POLYESTER 500V 0.43UF ( G,H,I )         | ( △ )   |
| C556     | F0C2E434A049 | POLYESTER 250V 0.36UF ( G,H,I )         | ( △ )   |
| C556     | ECWF2364JBB  | POLYESTER 500V 0.36UF ( E,F )           | ( △ )   |
| C556     | ECWF2364JSB  | POLYESTER 250V 0.36UF ( E,F )           | ( △ )   |
| C556     | ECWF2364JSR  | POLYESTER 250V 0.36UF ( E,F )           | ( △ )   |
| C556     | F0C2D364A007 | POLYESTER 250V 0.36UF ( E,F )           | ( △ )   |
| C556     | F0C2E364A049 | POLYESTER 250V 0.36UF ( E,F )           | ( △ )   |
| C558     | ECA1VM221B   | ELECTROLYTIC 35V 220UF ( A,B,C,D,E,F )  | ( △ )   |
| C558     | ECA1VM331B   | ELECTROLYTIC 35V 330UF ( G,H,I )        | ( △ )   |
| C560     | ECA2EM100B   | ELECTROLYTIC 250V 10UF                  | ( △ )   |
| C561     | ECA1HM2R2B   | ELECTROLYTIC 50V 2.2UF                  |         |
| C563     | ECEA180V33WE | ELECTROLYTIC 180V 33UF                  |         |
| C571     | ECEA1HKA3R3I | ELECTROLYTIC 50V 3.3UF ( A,B,C,D,E,F )  | ( △ )   |
| C571     | ECEA1EKA100I | ELECTROLYTIC 25V 10UF ( G,H,I )         | ( △ )   |
| C572     | ECA1CM221B   | ELECTROLYTIC 16V 220UF                  |         |
| C573     | ECKR2H122KB5 | CERAMIC 50V 1200PF ( G,H,I )            |         |

| Ref. No. | Part No.      | Part Name & Description                 | Remarks |
|----------|---------------|---|---------|
| C801     | VCKSRNG472ZX  | CERAMIC 250V 4700PF                     |         |
| C802     | VCKSRNG472ZX  | CERAMIC 250V 4700PF                     |         |
| C803     | VCKSRNG472ZX  | CERAMIC 250V 4700PF                     |         |
| C804     | VCKSRNG472ZX  | CERAMIC 250V 4700PF                     |         |
| C805     | ECES2DU221EG  | ELECTROLYTIC 200V 220UF ( A,B,C,D,E,F ) |         |
| C805     | F2B2D2210009  | ELECTROLYTIC 200V 220UF ( A,B,C,D,E,F ) |         |
| C805     | ECOS2PP471BB  | ELECTROLYTIC 180V 470UF ( G,H,I )       |         |
| C805     | ECES2PU471HG  | ELECTROLYTIC 180V 470UF ( G,H,I )       |         |
| C806     | ECA2EM100E    | ELECTROLYTIC 250V 10UF ( A,B,C,D,E,F )  |         |
| C806     | ECA2EM220E    | ELECTROLYTIC 250V 22UF ( G,H,I )        |         |
| C807     | J0LE00000023  | ARRESTER                                | △       |
| C808     | ECQU2A823MLA  | POLYESTER 250V 0.082UF                  | △       |
| C808     | LSCFQ2A823MC  | POLYESTER 250V 0.082UF                  | △       |
| C809     | F1B2E101A009  | CERAMIC 250V 100PF                      | △       |
| C809     | F1B2E101A008  | CERAMIC 250V 100PF                      | △       |
| C809     | F1B2E101A032  | CERAMIC 250V 100PF                      | △       |
| C809     | F1B2E101A033  | CERAMIC 250V 100PF                      | △       |
| C811     | F1B2E152A012  | CERAMIC 250V 1500PF                     | △       |
| C811     | F1B2E152A011  | CERAMIC 250V 1500PF                     | △       |
| C811     | F1B2E152A044  | CERAMIC 250V 1500PF                     | △       |
| C811     | F1B2E152A045  | CERAMIC 250V 1500PF                     | △       |
| C811     | F1B2E1520002  | CERAMIC 250V 1500PF                     | △       |
| C811     | F1B2E1520006  | CERAMIC 250V 1500PF                     | △       |
| C1001    | ECKATS103MF   | CERAMIC 250V 0.01UF                     | △       |
| C1001    | ECKETS103MF   | CERAMIC 125V 0.01UF                     | △       |
| C1001    | VCKST3G103MY  | CERAMIC 250V 0.01UF                     | △       |
| C1001    | VCKSU3D103MY  | CERAMIC 125V 0.01UF                     | △       |
| C1002    | ECKATS332ME8  | CERAMIC 250V 3300PF                     | △       |
| C1002    | ECKDNB332ME8  | CERAMIC 125V 3300PF                     | △       |
| C1002    | ECKETS332ME8  | CERAMIC 125V 3300PF                     | △       |
| C1002    | VCKST3G332MX  | CERAMIC 250V 3300PF                     | △       |
| C1002    | VCKSU3D332MX  | CERAMIC 125V 3300PF                     | △       |
| C1003    | F1B2E102A012  | CERAMIC 250V 1000PF                     | △       |
| C1003    | F1B2E102A011  | CERAMIC 250V 1000PF                     | △       |
| C1003    | F1B2E102A044  | CERAMIC 250V 1000PF                     | △       |
| C1003    | F1B2E102A045  | CERAMIC 250V 1000PF                     | △       |
| C1003    | F1B2E1020005  | CERAMIC 250V 1000PF                     | △       |
| C1003    | F1B2E1020006  | CERAMIC 250V 1000PF                     | △       |
| C1004    | ECEA2DU121YE  | ELECTROLYTIC 200V 120UF                 | △       |
| C1004    | F2A2D1210001  | ELECTROLYTIC 200V 120UF                 | △       |
| C1004    | F2A2D1210003  | ELECTROLYTIC 200V 120UF                 | △       |
| C1004    | VCESR2D121XE  | ELECTROLYTIC 200V 120UF                 | △       |
| C1005    | ECA2DHG4R7B   | ELECTROLYTIC 200V 4.7UF                 |         |
| C1006    | ECKR2H221KB5  | CERAMIC 500V 220PF                      |         |
| C1007    | ECJ2VB1C224K  | C CHIP 16V 0.22UF                       |         |
| C1009    | VCYSBRE183KX  | CERAMIC 25V 0.018UF                     |         |
| C1010    | ECJ2VB1H102K  | C CHIP 50V 1000PF                       |         |
| C1011    | ECA1HHG470B   | ELECTROLYTIC 50V 47UF                   |         |
| C1012    | ECEALPPE331   | ELECTROLYTIC 18V 330UF                  |         |
| C1013    | ECA1EM331B    | ELECTROLYTIC 25V 330UF                  |         |
| C1016    | ECEALPPE331   | ELECTROLYTIC 18V 330UF                  |         |
| C1017    | ECA0JM102B    | ELECTROLYTIC 6.3V 1000UF                |         |
| C1018    | ECJ2VB1E104K  | C CHIP 25V 0.1UF                        |         |
| C1025    | F1B2E101A009  | CERAMIC 250V 100PF                      | △       |
| C1025    | F1B2E101A008  | CERAMIC 250V 100PF                      | △       |
| C1025    | F1B2E101A032  | CERAMIC 250V 100PF                      | △       |
| C1025    | F1B2E101A033  | CERAMIC 250V 100PF                      | △       |
| C1029    | ECJ2VCLH101J  | C CHIP 50V 100PF                        |         |
| C1030    | VCYSBRE183KX  | CERAMIC 25V 0.018UF                     |         |
| C1051    | ECEALHKAR47   | ELECTROLYTIC 50V 0.47UF                 |         |
| C1052    | ECEALCKA100   | ELECTROLYTIC 16V 10UF                   |         |
| C1058    | ECEA0JEE101   | ELECTROLYTIC 6.3V 100UF                 |         |
| C1059    | ECEALCKA470   | ELECTROLYTIC 16V 47UF                   |         |
| C1060    | ECEALCKA470   | ELECTROLYTIC 16V 47UF                   |         |
| C3003    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF                        |         |
| C3004    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF                       |         |
| C3006    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF                        |         |
| C3007    | ECEA0JKA101   | ELECTROLYTIC 6.3V 100UF                 |         |

| Ref. No. | Part No.      | Part Name & Description | Remarks |
|----------|---------------|-------------------------|---------|
| C3008    | ECJ2VCLH181J  | C CHIP 50V 180PF        |         |
| C3009    | ECEA1EKA4R7   | ELECTROLYTIC 25V 4.7UF  |         |
| C3010    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C3013    | ECJ2VFL1C224Z | C CHIP 16V 0.22UF       |         |
| C3015    | ECEA0JKA470   | ELECTROLYTIC 6.3V 47UF  |         |
| C3016    | ECEALCKA100   | ELECTROLYTIC 16V 10UF   |         |
| C3019    | ECEALHKA2R2   | ELECTROLYTIC 50V 2.2UF  |         |
| C3020    | ECEALCKA220   | ELECTROLYTIC 16V 22UF   |         |
| C3021    | ECEALHKA2R2   | ELECTROLYTIC 50V 2.2UF  |         |
| C3022    | ECJ2VFL1C224Z | C CHIP 16V 0.22UF       |         |
| C3023    | ECJ2VCLH680J  | C CHIP 50V 68PF         |         |
| C3024    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF        |         |
| C3025    | ECJ2VB1E104K  | C CHIP 25V 0.1UF        |         |
| C3026    | ECJ2VB1H822K  | C CHIP 50V 8200PF       |         |
| C3027    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C3030    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C3031    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF        |         |
| C3032    | ECJ2VFL1C474Z | C CHIP 16V 0.47UF       |         |
| C3034    | ECJ2VCLH181J  | C CHIP 50V 180PF        |         |
| C3035    | ECJ2VCLH330J  | C CHIP 50V 33PF         |         |
| C3036    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF        |         |
| C3038    | ECEALCKA100   | ELECTROLYTIC 16V 10UF   |         |
| C3041    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C3043    | ECJ2VB1H392K  | C CHIP 50V 3900PF       |         |
| C3044    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C3045    | ECEALHKAR47   | ELECTROLYTIC 50V 0.47UF |         |
| C3046    | ECEALHKA2R2   | ELECTROLYTIC 50V 2.2UF  |         |
| C3047    | ECEA0JKA101   | ELECTROLYTIC 6.3V 100UF |         |
| C3048    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF        |         |
| C3050    | ECEALHKA2R2   | ELECTROLYTIC 50V 2.2UF  |         |
| C3053    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C3055    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF        |         |
| C3056    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF        |         |
| C3057    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF        |         |
| C3058    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C3082    | ECJ2VB1H332K  | C CHIP 50V 3300PF       |         |
| C3231    | ECEALHKA010   | ELECTROLYTIC 50V 1UF    |         |
| C3232    | ECJ2VB1H102K  | C CHIP 50V 1000PF       |         |
| C3234    | ECEA0JKA470   | ELECTROLYTIC 6.3V 47UF  |         |
| C3235    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C3236    | ECJ2VFL1E104Z | C CHIP 25V 0.1UF        |         |
| C3237    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C4001    | ECJ2VFL1C224Z | C CHIP 16V 0.22UF       |         |
| C4002    | ECEALHKA010   | ELECTROLYTIC 50V 1UF    |         |
| C4003    | ECJ2VB1H272K  | C CHIP 50V 2700PF       |         |
| C4004    | ECJ2VB1H103K  | C CHIP 50V 0.01UF       |         |
| C4005    | ECEA0JKA220   | ELECTROLYTIC 6.3V 22UF  |         |
| C4006    | ECJ2VB1H102K  | C CHIP 50V 1000PF       |         |
| C4007    | ECEA0JKA220   | ELECTROLYTIC 6.3V 22UF  |         |
| C4008    | ECEA0JKA470   | ELECTROLYTIC 6.3V 47UF  |         |
| C4009    | ECEALCKA100   | ELECTROLYTIC 16V 10UF   |         |
| C4010    | ECJ2VB1E333K  | C CHIP 25V 0.033UF      |         |
| C4011    | ECJ2VB1H103K  | C CHIP 50V 0.01UF       |         |
| C4012    | ECEALHKA010   | ELECTROLYTIC 50V 1UF    |         |
| C4013    | ECEA0JKA470   | ELECTROLYTIC 6.3V 47UF  |         |
| C4014    | ECEALHKA010   | ELECTROLYTIC 50V 1UF    |         |
| C4018    | ECJ2VB1H103K  | C CHIP 50V 0.01UF       |         |
| C4020    | ECEALHKA010   | ELECTROLYTIC 50V 1UF    |         |
| C4102    | ECQB1562JF3   | POLYESTER 100V 5600PF   |         |
| C4103    | ECJ2VB1H103K  | C CHIP 50V 0.01UF       |         |
| C4104    | ECJ2VB1H103K  | C CHIP 50V 0.01UF       |         |
| C4105    | ECEALCKA220   | ELECTROLYTIC 16V 22UF   |         |
| C4171    | ECEALHKA010   | ELECTROLYTIC 50V 1UF    |         |
| C4502    | ECEALCKA100   | ELECTROLYTIC 16V 10UF   |         |
| C4504    | ECEA1EKA4R7   | ELECTROLYTIC 25V 4.7UF  |         |
| C4506    | ECEALCKA470   | ELECTROLYTIC 16V 47UF   |         |
| C4508    | ECA1CM221B    | ELECTROLYTIC 16V 220UF  |         |
| C4509    | ECJ2VB1E473K  | C CHIP 25V 0.047UF      |         |
| C4521    | ECA1EM102B    | ELECTROLYTIC 25V 1000UF |         |
| C4524    | ECJ2VFL1H103Z | C CHIP 50V 0.01UF       |         |
| C5301    | ECEALCKA100   | ELECTROLYTIC 16V 10UF   |         |
| C5302    | ECEA1EKA4R7   | ELECTROLYTIC 25V 4.7UF  |         |
| C5303    | ECEALHKAR47   | ELECTROLYTIC 50V 0.47UF |         |

| Ref. No. | Part No.     | Part Name & Description  | Remarks |
|----------|--------------|--------------------------|---------|
| C5305    | ECEA1HKAR33  | ELECTROLYTIC 50V 0.33UF  |         |
| C5306    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C5307    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C5308    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C5401    | VCUSTBC224KB | C CHIP 16V 0.22UF        |         |
| C5402    | ECJ2VB1H222K | C CHIP 50V 2200PF        |         |
| C5403    | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF   |         |
| C5501    | ECJ2VB1E183K | C CHIP 25V 0.018UF       |         |
| C5502    | ECJ2VB1H681K | C CHIP 50V 680PF         |         |
| C5505    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C5506    | ECJ2VFIH103Z | C CHIP 50V 0.01UF        |         |
| C5507    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C5508    | ECUV1H221JSN | C CHIP 50V 220PF         |         |
| C5510    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF     |         |
| C5511    | ECJ2VB1E333K | C CHIP 25V 0.033UF       |         |
| C5516    | ECJ2VB1E333K | C CHIP 25V 0.033UF       |         |
| C5601    | ECJ2VFIH103Z | C CHIP 50V 0.01UF        |         |
| C5602    | ECJ2VB1E104K | C CHIP 25V 0.1UF         |         |
| C5603    | ECJ2VCIH150J | C CHIP 50V 15PF          |         |
| C5604    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF     |         |
| C5605    | ECJ2VB1E153K | C CHIP 25V 0.015UF       |         |
| C5902    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C5903    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C5904    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C5905    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C5906    | ECJ2VFIH103Z | C CHIP 50V 0.01UF        |         |
| C5932    | ECJ2VFIH103Z | C CHIP 50V 0.01UF        |         |
| C6001    | ECEA0JKA331  | ELECTROLYTIC 6.3V 330UF  |         |
| C6002    | ECJ2VCIH080C | C CHIP 50V 8PF           |         |
| C6003    | ECJ2VCIH100C | C CHIP 50V 10PF          |         |
| C6004    | ECJ2VB1E104K | C CHIP 25V 0.1UF         |         |
| C6006    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6009    | ECEA1CKS100  | ELECTROLYTIC 16V 10UF    |         |
| C6013    | ECJ2VCIH101J | C CHIP 50V 100PF         |         |
| C6017    | ECJ2VCIH101J | C CHIP 50V 100PF         |         |
| C6018    | ECJ2VCIH101J | C CHIP 50V 100PF         |         |
| C6020    | ECJ2VFIH104Z | C CHIP 50V 0.1UF         |         |
| C6021    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6023    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6025    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF   |         |
| C6029    | ECJ2VFIH104Z | C CHIP 50V 0.1UF         |         |
| C6040    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6041    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6044    | ECJ2VFIH104Z | C CHIP 25V 0.1UF         |         |
| C6201    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6202    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6203    | ECJ2VB1H332K | C CHIP 50V 3300PF        |         |
| C6204    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6207    | ECJ2VFIH104Z | C CHIP 50V 0.1UF         |         |
| C6208    | ECEA1CKS100  | ELECTROLYTIC 16V 10UF    |         |
| C6209    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6212    | ECJ2VFIH104Z | C CHIP 50V 0.1UF         |         |
| C6213    | ECEA0JKS331I | ELECTROLYTIC 6.3V 330UF  |         |
| C6214    | ECEA0JKS220  | ELECTROLYTIC 6.3V 22UF   |         |
| C6215    | ECJ2VB1H272K | C CHIP 50V 2700PF        |         |
| C6216    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6220    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C6221    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6302    | ECJ2VFIH104Z | C CHIP 50V 0.1UF         |         |
| C6401    | ECJ2VFIH104Z | C CHIP 50V 0.1UF         |         |
| C6402    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6403    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF     |         |
| C6404    | ECJ2VCIH121J | C CHIP 50V 120PF         |         |
| C6406    | ECEA1HKS010  | ELECTROLYTIC 50V 1UF     |         |
| C6408    | ECJ2VB1H222K | C CHIP 50V 2200PF        |         |
| C6410    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C7002    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C7006    | ECA0JML02B   | ELECTROLYTIC 6.3V 1000UF |         |
| C7007    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C7008    | ECJ2VFIH103Z | C CHIP 50V 0.01UF        |         |
| C7010    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF     |         |

## COILS

| Ref. No. | Part No.     | Part Name & Description   | Remarks |
|----------|--------------|---------------------------|---------|
| L501     | G0D680000001 | COIL ( G,H,I )            | △       |
| L501     | ELH5L4108    | COIL ( G,H,I )            | △       |
| L501     | ELH5L4145    | COIL ( G,H,I )            | △       |
| L501     | ELH5L423     | COIL ( G,H,I )            | △       |
| L501     | G0D510000001 | COIL ( G,H,I )            | △       |
| L553     | VLQSW07D220M | COIL 22UH                 |         |
| L803     | ELF21V018A   | LINE FILTER               | △       |
| L803     | JOHBLG000001 | LINE FILTER               | △       |
| L803     | LLN63055A    | COIL                      | △       |
| L1001    | ELF15N005A   | LINE FILTER 0.5A 18MH     | △       |
| L1001    | ELF18D290A   | LINE FILTER 0.5A 18MH     | △       |
| L1001    | JOHBLD000001 | LINE FILTER 0.5A 18MH     | △       |
| L1001    | JOHBLD000002 | LINE FILTER 0.5A 18MH     | △       |
| L1002    | VLQSA7D220K  | COIL 22UH                 |         |
| L1003    | VLQSA7D100K  | COIL 10UH                 |         |
| L1006    | JOJHB0000021 | FILTER                    |         |
| L1007    | G0C101KA0045 | COIL 100UH                |         |
| L3001    | G0C390KA0045 | COIL 39UH                 |         |
| L3002    | ELESN101KA   | COIL 100UH                |         |
| L3005    | G0C330KA0045 | COIL 33UH                 |         |
| L3010    | ELESN470KA   | COIL 47UH                 |         |
| L3231    | ELESN221KA   | COIL 220UH                |         |
| L4001    | ELELN153KA   | COIL 15MH                 |         |
| L4002    | ELESN101KA   | COIL 100UH                |         |
| L4004    | G0C390KA0045 | COIL 39UH ( A,B,C,D,E,F ) |         |
| L4004    | G0C220KA0045 | COIL 22UH ( G,H,I )       |         |
| L4101    | ELESN471KA   | COIL 470UH                |         |
| L5901    | ELESN101KA   | COIL 100UH                |         |
| L5902    | ELESN470KA   | COIL 47UH                 |         |
| L6201    | ELEXT101KE04 | COIL 100UH                |         |
| L6401    | ELEXT101KE04 | COIL 100UH                |         |
| L6402    | JOJBC0000022 | CHIP BEAD INDUCTOR        |         |
| L6403    | JOJBC0000022 | CHIP BEAD INDUCTOR        |         |
| L6404    | JOJBC0000022 | CHIP BEAD INDUCTOR        |         |
| L6405    | JOJBC0000022 | CHIP BEAD INDUCTOR        |         |
| L7002    | ELESN100KA   | COIL 10UH                 |         |

## CRYSTAL OSCILLATOR

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| X5501    | H2A503300012 | CRYSTAL OSCILLATOR      |         |
| X5601    | VSXS0190-TB  | CRYSTAL OSCILLATOR      |         |
| X6001    | VSXS0784     | CRYSTAL OSCILLATOR      |         |

## PIN HEADERS

| Ref. No. | Part No.     | Part Name & Description                            | Remarks |
|----------|--------------|--|---------|
| P552     | LSJWS4N250LL | PIN HEADER ( A,B,C,D,E,F )                         |         |
| P552     | LSJWS4N360LL | PIN HEADER ( G,H,I )                               |         |
| P801     | VEKS5809     | CONNECTOR CABLE W/OUT PLUG, 200V                   |         |
| P803     | LSJP0814     | CONNECTOR 2P                                       |         |
| P3001    | K1KA08A00305 | CONNECTOR 8P ( A,B,C,D,G,H,I )                     |         |
| P3001    | K1KA12A00232 | CONNECTOR 12P ( E,F )                              |         |
| P4001    | VJSS0888     | FE CONNECTOR 2P                                    |         |
| P4002    | LSJWR6N120CL | PARALLEL WIRE                                      |         |
| P4591    | K1KA02A00375 | CONNECTOR 2P                                       |         |
| P5301    | LSJWR4N380LL | CONNECTOR CABLE W/OUT PLUG, 12V DC ( A,B,C,D,E,F ) |         |
| P5301    | LSJWR4N490LL | CONNECTOR CABLE W/OUT PLUG, 12V DC ( G,H,I )       |         |
| P6001    | K1KA05A00268 | CONNECTOR 5P                                       |         |
| P6201    | K1KA12A00234 | PIN HEADER   |         |

## SWITCHES

| Ref. No. | Part No.     | Part Name & Description     | Remarks |
|----------|--------------|-----------------------------|---------|
| SW6001   | LSSH0002     | LEAF SWITCH-SAFETY TAB      |         |
| SW6002   | K0N107C00002 | PUSH SWITCH                 |         |
| SW6301   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6301   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6302   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6302   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6303   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |

| Ref. No. | Part No.     | Part Name & Description     | Remarks |
|----------|--------------|-----------------------------|---------|
| SW6303   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6304   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6304   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6305   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6305   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6306   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6306   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6307   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6307   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6308   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6308   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6309   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6309   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6310   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6310   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |
| SW6311   | K0H1BA000259 | PUSH SWITCH ( A,B,C,D,E,F ) |         |
| SW6311   | EVQ21405R    | PUSH SWITCH ( G,H,I )       |         |

## FUSE &amp; PROTECTOR

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| F801     | K5D402AQ0002 | FUSE 125V 4A            | △       |
| F801     | K5D402AB0002 | FUSE 125V 4A            | △       |
| F801     | K5D402ADA002 | FUSE 125V 4A            | △       |
| F801     | K5D402ADA006 | FUSE 125V 4A            | △       |
| F1001    | K5D162AQ0004 | FUSE 125V 1.6A          | △       |
| F1001    | K5D162ADA001 | FUSE 125V 1.6A          | △       |
| F1001    | K5D162ADA008 | FUSE 125V 1.6A          | △       |
| PR1001   | UMH000600A   | IC PROTECTOR 1.5A       | △       |
| PR1001   | B1ZAZ0000040 | IC PROTECTOR 1.5A       | △       |
| PR1001   | LSSF009A25E  | IC PROTECTOR 1.5A       | △       |
| PR1002   | UMH000600A   | IC PROTECTOR 1.5A       | △       |
| PR1002   | B1ZAZ0000040 | IC PROTECTOR 1.5A       | △       |
| PR1002   | LSSF009A25E  | IC PROTECTOR 1.5A       | △       |

## RELAY

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| RL801    | LSSY0004     | RELAY                   | △       |
| RL801    | K6B1AGA00034 | RELAY                   | △       |
| RL801    | K6B1AGA00042 | RELAY, 120V             | △       |
| RL801    | TSEH0013     | RELAY                   | △       |
| RL801    | TSEH1860-1   | RELAY                   | △       |

## TRANSFORMER

| Ref. No. | Part No.     | Part Name & Description         | Remarks |
|----------|--------------|---------------------------------|---------|
| T501     | ETH09K6AZ    | TRANSFORMER ( A,B,C,D,E,F )     |         |
| T501     | ETH09K8AZ    | TRANSFORMER ( G,H,I )           |         |
| T551     | KPT2AB399F   | FLYBACK TRANSFORMER ( A,B,C,D ) | △       |
| T551     | G4G3H0000001 | FLYBACK TRANSFORMERS ( E,F )    | △       |
| T551     | KPT3AB400F   | FLYBACK TRANSFORMER ( G,H,I )   | △       |
| T1001    | ETS28AD2J3AC | SW TRANSFORMER                  | △       |
| T1001    | LSTP0105     | TRANSFORMER                     | △       |
| T1001    | VTPS0042     | SW TRANSFORMER                  | △       |
| T4101    | G2A342C00003 | TRANSFORMER                     |         |

## JACKS

| Ref. No. | Part No.     | Part Name & Description       | Remarks |
|----------|--------------|-------------------------------|---------|
| JK4591   | K2HC103B0130 | FRONT AUDIO/VIDEO JACK SOCKET |         |
| JK4701   | K2HA204B0114 | EARPHONE JACK SOCKET          |         |

## MISCELLANEOUS

| Ref. No. | Part No.     | Part Name & Description      | Remarks |
|----------|--------------|------------------------------|---------|
| 483      | XYN3+F108    | SCREW W/WASHER, STEEL        |         |
| 488      | XYN3+F68     | SCREW W/WASHER, STEEL        |         |
| 497      | XTV3+10J     | TAPPING SCREW, SCREW         |         |
| 711      | PNA4611M00HC | INFRARED RECEIVER UNIT       |         |
| 719      | VMFS0136     | SHEET, NYLON-RAYON ( G,H,I ) |         |
| 743      | ENG36709GL   | TUNER, UHF/VHF NR            |         |
| 751      | LML69001A    | ANODE LEAD CLAMPER           |         |
| 758      | TUC77616     | HEAT SINK ( A,B,C,D,E,F )    |         |
| 766      | TUC76677-1   | HEAT SINK ( A,B,C,D,E,F )    |         |

| Ref. No. | Part No.   | Part Name & Description | Remarks |
|----------|------------|-------------------------|---------|
| 767      | TUC77626   | HEAT SINK ( G,H,I )     |         |
| 768      | TUC77603-1 | HEAT SINK ( G,H,I )     |         |
| 769      | LUS23005B  | HEAT SINK ( G,H,I )     |         |
| 771      | EYF52BC    | FUSE HOLDER             |         |

## 12.3.2. TV/VCR MAIN C.B.A.

(Model: J)

## COMPARISON CHART OF MODELS &amp; MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

## INTEGRATED CIRCUITS

| Ref. No. | Part No.      | Part Name & Description  | Remarks |
|----------|---------------|--------------------------|---------|
| IC451    | CLAA00000024  | IC, LINEAR               |         |
| IC501    | CNC1S101R1KT  | IC, LINEAR               | △       |
| IC501    | CNC1S101R1KT  | IC, LINEAR               | △       |
| IC501    | CNC1S101S1KT  | IC, LINEAR               | △       |
| IC502    | CNC1S101R2KT  | IC, LINEAR               | △       |
| IC801    | C5HABZZ00051  | IC, LINEAR               | △       |
| IC1001   | CNC1S101R1KT  | IC, LINEAR               | △       |
| IC1001   | CNC1S101S1KT  | IC, LINEAR               | △       |
| IC1002   | C0DAEMZ00005  | IC, LINEAR               |         |
| IC1002   | B1AZKD000001  | IC, LINEAR               |         |
| IC1002   | C0DAEMZ00001  | IC, LINEAR               |         |
| IC3001   | AN3479FBP-A   | IC, LINEAR               |         |
| IC3201   | MN3885S       | IC, CCD 1H DELAY         | E.S.D.  |
| IC4501   | CLAA000000652 | IC, LINEAR               |         |
| IC4511   | CLAA000000652 | IC, LINEAR               |         |
| IC5301   | AN15167A-VT   | IC, LINEAR               |         |
| IC6001   | MN101D06FCC   | IC, 8BIT MICROCONTROLLER | E.S.D.  |
| IC6002   | B3NAA0000049  | PHOTO INTERRUPTER        |         |
| IC6003   | B3NAA0000049  | PHOTO INTERRUPTER        |         |
| IC6004   | LSSK0026      | IC, 1K EEPROM            | E.S.D.  |
| IC6005   | C0EBJ0000080  | IC, CMOS STANDARD LOGIC  | E.S.D.  |
| IC6005   | C0EBJ0000099  | IC, CMOS STANDARD LOGIC  | E.S.D.  |
| IC6005   | RN5VS47CA-TR  | IC, CMOS STANDARD LOGIC  | E.S.D.  |
| IC9001   | AN5832SA-E1   | IC, LINEAR               |         |
| IC9201   | AN7420-NT     | IC, LINEAR               |         |
| IC9301   | C0JBAR000002  | IC, CMOS STANDARD LOGIC  | E.S.D.  |
| IC9301   | CD4052BCM     | IC, CMOS STANDARD LOGIC  | E.S.D.  |

## TRANSISTORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| Q431     | 2SA733-TQ    | TRANSISTOR SI PNP       |         |
| Q431     | 2SA1175      | TRANSISTOR SI PNP       |         |
| Q431     | 2SA1175-TH   | TRANSISTOR SI PNP       |         |
| Q501     | B1AACN000013 | TRANSISTOR SI NPN       |         |
| Q531     | 2SA733-TQ    | TRANSISTOR SI PNP       |         |
| Q531     | 2SA1175      | TRANSISTOR SI PNP       |         |
| Q531     | 2SA1175-TH   | TRANSISTOR SI PNP       |         |
| Q532     | 2SC945A-TQ   | TRANSISTOR SI NPN       |         |
| Q532     | 2SC2785-TH   | TRANSISTOR SI NPN       |         |



| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| Q532     | 28C2785-TJ   | TRANSISTOR SI NPN       |         |
| Q551     | B1GARRAB0001 | TRANSISTOR SI NPN       | △       |
| Q571     | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q571     | B1ABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q581     | B1ACBM000001 | TRANSISTOR SI NPN       |         |
| Q581     | 2SA17670QA   | TRANSISTOR SI PNP CHIP  |         |
| Q581     | 2SB12210QA   | TRANSISTOR SI PNP CHIP  |         |
| Q801     | 28C945A-TKA  | TRANSISTOR SI NPN       |         |
| Q801     | 28C1684-Q    | TRANSISTOR SI NPN       |         |
| Q801     | 28C1684-S    | TRANSISTOR SI NPN       |         |
| Q801     | 28C16840RA   | TRANSISTOR SI NPN       |         |
| Q801     | 28C2785-TE   | TRANSISTOR SI NPN       |         |
| Q801     | 28C2785-TF   | TRANSISTOR SI NPN       |         |
| Q801     | 28C2785-TH   | TRANSISTOR SI NPN       |         |
| Q801     | 28C2785-TJ   | TRANSISTOR SI NPN       |         |
| Q801     | 28C2785-TK   | TRANSISTOR SI NPN       |         |
| Q801     | 28C3311AQA   | TRANSISTOR SI NPN       |         |
| Q801     | 28C3311ARA   | TRANSISTOR SI NPN       |         |
| Q801     | 28C3311ASA   | TRANSISTOR SI NPN       |         |
| Q801     | 28C945A-TPA  | TRANSISTOR SI NPN       |         |
| Q801     | 28C945A-TQA  | TRANSISTOR SI NPN       |         |
| Q1001    | 28C4953001KT | TRANSISTOR SI NPN       | △       |
| Q1001    | 28C4953001KT | TRANSISTOR SI NPN       | △       |
| Q1002    | 2SD225900A   | TRANSISTOR SI NPN       |         |
| Q1051    | B1BACC000010 | TRANSISTOR SI NPN       |         |
| Q1051    | 2SD1581-T    | TRANSISTOR SI NPN       |         |
| Q1052    | 2SD0601AHL   | TRANSISTOR SI NPN CHIP  |         |
| Q1052    | B1ABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q1053    | 2SD235800A   | TRANSISTOR SI NPN CHIP  |         |
| Q1053    | B1AAQB000002 | TRANSISTOR SI NPN CHIP  |         |
| Q1070    | 2SB0709A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q1070    | B1ADCF000001 | TRANSISTOR SI PNP CHIP  |         |
| Q1071    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q1071    | B1ABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q3001    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q3001    | B1ADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q3002    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q3002    | B1ABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q3301    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q3301    | B1ABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q4001    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q4001    | B1ADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q4002    | 2SD1819AHL   | TRANSISTOR SI NPN CHIP  |         |
| Q4003    | 2SD1819AHL   | TRANSISTOR SI NPN CHIP  |         |
| Q4101    | 2SD0601ARL   | TRANSISTOR SI NPN CHIP  |         |
| Q4171    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q4171    | B1ABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q5301    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q5301    | B1ABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q5901    | 2SD225900A   | TRANSISTOR SI NPN       |         |
| Q6001    | 2SB0709A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q6001    | B1ADCF000001 | TRANSISTOR SI PNP CHIP  |         |
| Q6002    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q6002    | B1ABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q6003    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q6003    | B1ABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q6004    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q6004    | B1ADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q6005    | 2SB0709A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q6005    | B1ADCF000001 | TRANSISTOR SI PNP CHIP  |         |
| Q6006    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q6009    | VEKS5707     | PHOTO SENSOR UNIT       |         |
| Q6010    | VEKS5707     | PHOTO SENSOR UNIT       |         |
| Q9001    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q9001    | B1ADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q9002    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q9002    | B1ADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q9201    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q9201    | B1ABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q9202    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q9202    | B1ABCF000020 | TRANSISTOR SI NPN CHIP  |         |

| DIODES   |              |                         |         |
|----------|--------------|-------------------------|---------|
| Ref. No. | Part No.     | Part Name & Description | Remarks |
| D401     | B0EAKL000049 | DIODE SI                |         |
| D401     | B0EAKL000044 | DIODE SI                |         |
| D401     | B0EAKL000045 | DIODE SI                |         |
| D502     | MA2C165001VT | DIODE SI                |         |
| D502     | B0AACK000004 | DIODE SI                |         |
| D502     | 1SS119       | DIODE SI                |         |
| D503     | B0HAGP000011 | DIODE SI                |         |
| D503     | B0HAJP000012 | DIODE SI                |         |
| D504     | MAZ40470MF   | DIODE ZENER 4.7V        |         |
| D504     | MAZ40470HF   | DIODE ZENER 4.7V        |         |
| D504     | RD4.7ESAB    | DIODE ZENER 4.7V        |         |
| D504     | RD4.7ESAB2   | DIODE ZENER 4.7V        |         |
| D504     | 04AZ4.7ZTPA7 | DIODE ZENER 4.7V        |         |
| D507     | MA2C165001VT | DIODE SI                |         |
| D507     | B0AACK000004 | DIODE SI                |         |
| D507     | 1SS119       | DIODE SI                |         |
| D553     | B0HAGP000011 | DIODE SI                |         |
| D553     | B0HAJP000012 | DIODE SI                |         |
| D554     | B0AAEL000001 | DIODE SI                |         |
| D554     | MA2C16700E   | DIODE SI                |         |
| D558     | B0HAGP000011 | DIODE SI                |         |
| D558     | B0HAJP000012 | DIODE SI                |         |
| D560     | ERB44-04V    | DIODE SI                |         |
| D571     | MAZ40470MF   | DIODE ZENER 4.7V        |         |
| D571     | B0BA4R600003 | DIODE ZENER 4.7V        |         |
| D571     | RD4.7ESAB2   | DIODE ZENER 4.7V        |         |
| D572     | MAZ4110NHF   | DIODE ZENER 11V         |         |
| D573     | MA2C165001VT | DIODE SI                |         |
| D573     | B0AACK000004 | DIODE SI                |         |
| D573     | 1SS119       | DIODE SI                |         |
| D574     | MA2C165001VT | DIODE SI                |         |
| D574     | B0AACK000004 | DIODE SI                |         |
| D574     | 1SS119       | DIODE SI                |         |
| D591     | D4DDF5R00002 | THERMISTOR              | △       |
| D591     | VRPSKF5JM050 | THERMISTOR              | △       |
| D801     | B0AAKT000010 | DIODE SI                | △       |
| D801     | B0EAKT000027 | DIODE SI                | △       |
| D801     | B0EAKT000030 | DIODE SI                | △       |
| D802     | B0AAKT000010 | DIODE SI                | △       |
| D802     | B0EAKT000027 | DIODE SI                | △       |
| D802     | B0EAKT000030 | DIODE SI                | △       |
| D803     | B0AAKT000010 | DIODE SI                | △       |
| D803     | B0EAKT000027 | DIODE SI                | △       |
| D803     | B0EAKT000030 | DIODE SI                | △       |
| D804     | B0AAKT000010 | DIODE SI                | △       |
| D804     | B0EAKT000027 | DIODE SI                | △       |
| D804     | B0EAKT000030 | DIODE SI                | △       |
| D805     | MA2C16700E   | DIODE SI                |         |
| D805     | B0AAEL000001 | DIODE SI                |         |
| D881     | ERZV10V361CS | SURGE ABSORBER          | △       |
| D881     | D4EAA3610001 | SURGE ABSORBER          | △       |
| D882     | ERZV10V361CS | SURGE ABSORBER          | △       |
| D882     | D4EAA3610001 | SURGE ABSORBER          | △       |
| D1001    | DB105G       | DIODE SI                | △       |
| D1001    | B0EBKR000003 | DIODE SI                | △       |
| D1001    | B0EBKR000020 | DIODE SI                | △       |
| D1001    | B0EBKR000024 | DIODE SI                | △       |
| D1002    | B0HAHP000014 | DIODE SI                |         |
| D1002    | B0HAJP000007 | DIODE SI                |         |
| D1002    | B0HAMP000061 | DIODE SI                |         |
| D1002    | B0HAMP000069 | DIODE SI                |         |
| D1003    | B0HAHP000014 | DIODE SI                |         |
| D1003    | B0HAJP000007 | DIODE SI                |         |
| D1003    | B0HAMP000061 | DIODE SI                |         |
| D1003    | B0HAMP000069 | DIODE SI                |         |
| D1005    | B0HAHP000014 | DIODE SI                |         |
| D1005    | B0HAJP000007 | DIODE SI                |         |
| D1005    | B0HAMP000061 | DIODE SI                |         |
| D1005    | B0HAMP000069 | DIODE SI                |         |
| D1006    | B0HAML000015 | DIODE SI                |         |
| D1006    | B0HANL000012 | DIODE SI                |         |
| D1008    | B0JAME000079 | DIODE SI                |         |

| Ref. No. | Part No.     | Part Name & Description     | Remarks |
|----------|--------------|-----------------------------|---------|
| D1008    | B0JAME000049 | DIODE SI                    |         |
| D1008    | B0JANE000011 | DIODE SI                    |         |
| D1008    | B0JANE000022 | DIODE SI                    |         |
| D1015    | MA2180LA     | DIODE ZENER 18V             | △       |
| D1015    | B0BA01800025 | DIODE ZENER 18V             | △       |
| D1015    | 1N4746A-T    | DIODE ZENER 18V             | △       |
| D1015    | 1N4746ARL    | DIODE ZENER 18V             | △       |
| D1016    | MA2C165001VT | DIODE SI                    |         |
| D1016    | B0AACK000004 | DIODE SI                    |         |
| D1016    | 1SS119       | DIODE SI                    |         |
| D1051    | MAZ4110NHF   | DIODE ZENER 11V             |         |
| D1071    | B0HAHP000014 | DIODE SI                    |         |
| D1071    | B0HAJP000007 | DIODE SI                    |         |
| D1071    | B0HAMP000061 | DIODE SI                    |         |
| D1071    | B0HAMP000069 | DIODE SI                    |         |
| D4171    | MA2C165001VT | DIODE SI                    |         |
| D4171    | B0AACK000004 | DIODE SI                    |         |
| D4171    | 1SS119       | DIODE SI                    |         |
| D4526    | MAZ40560MF   | DIODE ZENER 5.6V            |         |
| D4527    | MAZ40560MF   | DIODE ZENER 5.6V            |         |
| D4528    | MAZ40390HF   | DIODE ZENER 3.9V            |         |
| D4711    | MAZ41100LF   | DIODE ZENER 11V             |         |
| D4711    | MAZ4110NHF   | DIODE ZENER 11V             |         |
| D5501    | MAZ40620L1KT | DIODE ZENER 6.2V            | △       |
| D5602    | MA2C165001VT | DIODE SI                    |         |
| D5602    | B0AACK000004 | DIODE SI                    |         |
| D5602    | 1SS119       | DIODE SI                    |         |
| D5603    | MA2C165001VT | DIODE SI                    |         |
| D5603    | B0AACK000004 | DIODE SI                    |         |
| D5603    | 1SS119       | DIODE SI                    |         |
| D6001    | VEKS5708     | SENSOR LED UNIT             |         |
| D6003    | MA2C165001VT | DIODE SI                    |         |
| D6003    | B0AACK000004 | DIODE SI                    |         |
| D6003    | 1SS119       | DIODE SI                    |         |
| D6005    | MA2C165001VT | DIODE SI                    |         |
| D6005    | B0AACK000004 | DIODE SI                    |         |
| D6005    | 1SS119       | DIODE SI                    |         |
| D6301    | B3AAA0000538 | LIGHT EMITTING DIODE RED    |         |
| D6302    | B3ACA0000192 | LIGHT EMITTING DIODE ORANGE |         |
| D6303    | B3ABA0000400 | LIGHT EMITTING DIODE GREEN  |         |
| D9301    | MA2C165001VT | DIODE SI                    |         |
| D9301    | B0AACK000004 | DIODE SI                    |         |
| D9301    | 1SS119       | DIODE SI                    |         |

## RESISTORS

| Ref. No. | Part No.     | Part Name & Description         | Remarks |
|----------|--------------|---------------------------------|---------|
| R401     | ERDS2TJ471   | CARBON 1/4W 470                 |         |
| R402     | ERDS2TJ223   | CARBON 1/4W 22K                 |         |
| R409     | ERJ6GEYJ333V | MGF CHIP 1/10W 33K              |         |
| R410     | ERDS2TJ392   | CARBON 1/4W 3.9K                |         |
| R411     | ERDS2TJ823   | CARBON 1/4W 82K                 |         |
| R413     | ERJ6GEYJ273V | MGF CHIP 1/10W 27K              |         |
| R414     | ERDS1FJ1R2P  | CARBON 1/2W 1.2                 | △       |
| R422     | ERD25FJ101P  | CARBON 1/4W 100                 | △       |
| R427     | ERQ14AJ5R6P  | FUSE 1/4W 5.6                   | △       |
| R431     | ERDS2TJ103   | CARBON 1/4W 10K                 |         |
| R432     | ERJ6GEYJ563V | MGF CHIP 1/10W 56K              |         |
| R433     | ERJ6GEYJ153V | MGF CHIP 1/10W 15K              |         |
| R434     | ERDS2TJ103   | CARBON 1/4W 10K                 |         |
| R435     | ERDS2TJ102   | CARBON 1/4W 1K                  |         |
| R436     | ERJ6GEYJ104V | MGF CHIP 1/10W 100K             |         |
| R466     | ERJ6GEYJ683V | MGF CHIP 1/10W 68K              |         |
| R468     | ERDS2TJ102   | CARBON 1/4W 1K                  |         |
| R471     | ERDS1FJ152P  | CARBON 1/2W 1.5K                | △       |
| R501     | ERJ6GEYJ471V | MGF CHIP 1/10W 470              |         |
| R502     | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K             |         |
| R503     | EROS2THF7871 | PRECISION METAL FILM 1/4W 7.87K | △       |
| R503     | EROS2TKF7871 | PRECISION METAL FILM 1/4W 7.87K | △       |
| R504     | ERJ6GEY0R00V | MGF CHIP 1/10W 0                |         |
| R505     | ERDS2TJ561   | CARBON 1/4W 560                 |         |
| R509     | ERDS2TJ101   | CARBON 1/4W 100                 |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R511     | ERG3FJ222H   | METAL OXIDE 3W 0.22     |         |
| R516     | LAR05222J09  | W FLMPRF 5W 2.2K        |         |
| R517     | ERDS2TJ472   | CARBON 1/4W 4.7K        |         |
| R518     | ERDS1FJ1R0P  | CARBON 1/2W 1           |         |
| R519     | ERDS2TJ123   | CARBON 1/4W 12K         |         |
| R520     | ERDS2TJ562   | CARBON 1/4W 5.6K        |         |
| R525     | ERDS2TJ122   | CARBON 1/4W 1.2K        |         |
| R529     | ERDS2TJ103   | CARBON 1/4W 10K         |         |
| R531     | ERDS2TJ223   | CARBON 1/4W 22K         |         |
| R533     | ERDS2TJ152   | CARBON 1/4W 1.5K        |         |
| R534     | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R535     | ERDS2TJ471   | CARBON 1/4W 470         |         |
| R536     | ERG2ANJ153H  | METAL OXIDE 2W 15K      |         |
| R536     | ERG2ANJP153H | METAL OXIDE 2W 15K      |         |
| R537     | ERG2ANJ153H  | METAL OXIDE 2W 15K      |         |
| R537     | ERG2ANJP153H | METAL OXIDE 2W 15K      |         |
| R538     | ERDS2TJ473   | CARBON 1/4W 47K         |         |
| R539     | ERDS2TJ473   | CARBON 1/4W 47K         |         |
| R540     | ERDS2TJ562   | CARBON 1/4W 5.6K        |         |
| R541     | ERDS2TJ222   | CARBON 1/4W 2.2K        |         |
| R542     | ERDS2TJ473   | CARBON 1/4W 47K         |         |
| R543     | ERDS2TJ102   | CARBON 1/4W 1K          |         |
| R544     | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R545     | ERDS2TJ152   | CARBON 1/4W 1.5K        |         |
| R546     | ERDS2TJ223   | CARBON 1/4W 22K         |         |
| R552     | ERDS2TJ472   | CARBON 1/4W 4.7K        |         |
| R553     | ERDS2TJ102   | CARBON 1/4W 1K          |         |
| R554     | ERDS2TJ123   | CARBON 1/4W 12K         |         |
| R555     | ERDS2TJ823   | CARBON 1/4W 82K         |         |
| R556     | ERDS2TJ823   | CARBON 1/4W 82K         |         |
| R558     | ERG2ANJ561H  | METAL OXIDE 2W 560      |         |
| R559     | ERDS2TJ123   | CARBON 1/4W 12K         |         |
| R561     | ERQ1CKPR47S  | FUSE 1W 0.47            | △       |
| R562     | ERF2AK3R9P   | W FLMPRF 2W 3.9         |         |
| R571     | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R572     | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R573     | ERDS2TJ221   | CARBON 1/4W 220         |         |
| R574     | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R581     | ERDS1FJ1R5P  | CARBON 1/2W 1.5         | △       |
| R582     | ERDS1FJ1R5P  | CARBON 1/2W 1.5         | △       |
| R584     | ERDS2TJ272   | CARBON 1/4W 2.7K        |         |
| R585     | ERDS2TJ473   | CARBON 1/4W 47K         |         |
| R586     | ERDS2TJ393   | CARBON 1/4W 39K         |         |
| R593     | ERF5ZJ121    | W FLMPRF 5W 120         |         |
| R801     | ERF3AKR82    | W FLMPRF 3W 0.82        | △       |
| R802     | ERDS1FJ103P  | CARBON 1/2W 10K         | △       |
| R804     | ERF15ZJ181   | W FLMPRF 15W 180        |         |
| R805     | ERDS2TJ104   | CARBON 1/4W 100K        |         |
| R806     | ERQ14AJ470P  | FUSE 1/4W 47            | △       |
| R810     | ERDS2TJ103   | CARBON 1/4W 10K         |         |
| R813     | ERDS2TJ104   | CARBON 1/4W 100K        |         |
| R818     | VRSC2TK825T  | SOLID 1/2W 8.2M         | △       |
| R865     | ERDS2TJ222   | CARBON 1/4W 2.2K        |         |
| R1003    | D0AF334JA038 | CARBON 1/2W 330K        |         |
| R1004    | ERG2SJ333H   | METAL OXIDE 2W 33K      |         |
| R1005    | ERGL8J560P   | METAL OXIDE 1W 56       |         |
| R1006    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R1007    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R1008    | ERDS2TJ392   | CARBON 1/4W 3.9K        |         |
| R1010    | ERD25FJ100P  | CARBON 1/4W 10          | △       |
| R1014    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R1015    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R1016    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R1017    | D1BD2431A016 | MGF CHIP 1/10W 2.43K    |         |
| R1018    | D0HD222ZA002 | MGF CHIP 1/10W 2.2K     |         |
| R1025    | ERDS2TJ300T  | CARBON 1/4W 30          |         |
| R1026    | ERDS2TJ300T  | CARBON 1/4W 30          |         |
| R1051    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R1052    | ERDS2TJ153   | CARBON 1/4W 15K         |         |
| R1053    | ERDS2TJ153   | CARBON 1/4W 15K         |         |
| R1057    | ERDS2TJ331   | CARBON 1/4W 330         |         |
| R1058    | ERJ6GEYJ104V | MGF CHIP 1/10W 100K     |         |
| R1070    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |



| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R1071    | ERJ6GEYJ154V | MGF CHIP 1/10W 150K     |         |
| R1072    | ERJ6GEYJ152V | MGF CHIP 1/10W 1.5K     |         |
| R1073    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R1074    | ERDS2T0T     | CARBON 1/4W 0           |         |
| R3001    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R3006    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R3016    | ERJ6GEYJ121V | MGF CHIP 1/10W 120      |         |
| R3017    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R3024    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R3025    | ERJ6GEYJ125V | MGF CHIP 1/10W 1.2M     |         |
| R3026    | ERJ6GEYJ474V | MGF CHIP 1/10W 470K     |         |
| R3028    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R3029    | ERJ6GEYJ151V | MGF CHIP 1/10W 150      |         |
| R3032    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R3035    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R3036    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R3037    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R3038    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R3077    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R3084    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R3086    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R3091    | ERJ6GEYJ750V | MGF CHIP 1/10W 75       |         |
| R3301    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R3302    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R3303    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R4001    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R4002    | ERJ6GEYJ334V | MGF CHIP 1/10W 330K     |         |
| R4003    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R4004    | ERJ6GEYJ333V | MGF CHIP 1/10W 33K      |         |
| R4005    | ERJ6GEYJ225V | MGF CHIP 1/10W 2.2M     |         |
| R4006    | ERJ6GEYJ681V | MGF CHIP 1/10W 680      |         |
| R4007    | ERJ6GEYJ821V | MGF CHIP 1/10W 820      |         |
| R4008    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R4009    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R4010    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R4011    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K     |         |
| R4012    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K     |         |
| R4014    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R4015    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R4018    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K     |         |
| R4021    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R4101    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R4102    | ERJ6GEYJ154V | MGF CHIP 1/10W 150K     |         |
| R4103    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R4172    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R4175    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R4502    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R4504    | ERJ6GEYJ823V | MGF CHIP 1/10W 82K      |         |
| R4509    | ERDS2TJ100   | CARBON 1/4W 10          |         |
| R4512    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R4514    | ERJ6GEYJ823V | MGF CHIP 1/10W 82K      |         |
| R4519    | ERDS2TJ100   | CARBON 1/4W 10          |         |
| R4521    | ERQ1ABJP2R2S | FUSE 1W 2.2             | △       |
| R4523    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |
| R4591    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4592    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4593    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4594    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4701    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R5301    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R5304    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R5305    | ERJ6GEYJ224V | MGF CHIP 1/10W 220K     |         |
| R5306    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R5307    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |
| R5308    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R5309    | ERJ6GEYJ274V | MGF CHIP 1/10W 270K     |         |
| R5311    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R5312    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R5313    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R5314    | ERDS2TJ272   | CARBON 1/4W 2.7K        |         |
| R5315    | ERDS2TJ272   | CARBON 1/4W 2.7K        |         |
| R5316    | ERDS2TJ272   | CARBON 1/4W 2.7K        |         |
| R5317    | ERDS2TJ101   | CARBON 1/4W 100         |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R5324    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5401    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R5402    | ERJ6GEYJ394V | MGF CHIP 1/10W 390K     |         |
| R5403    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R5405    | ERJ6GEYJ822V | MGF CHIP 1/10W 8.2K     |         |
| R5406    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5501    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R5502    | ERJ6GEYJ394V | MGF CHIP 1/10W 390K     |         |
| R5503    | ERDS2TJ471   | CARBON 1/4W 470         |         |
| R5504    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5505    | ERJ6ENF3241V | MGF CHIP 1/10W 3.24K    | △       |
| R5506    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R5508    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R5510    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5511    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R5512    | ERDS2TJ151   | CARBON 1/4W 150         |         |
| R5513    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5601    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R5604    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R5611    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R5612    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R5614    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R5902    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R5932    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5933    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6001    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6002    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6003    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6004    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6005    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6006    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R6007    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6008    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6010    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6011    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6012    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6014    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6015    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6016    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6017    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6018    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6019    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R6021    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6022    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R6023    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6024    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6025    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |
| R6026    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6028    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R6029    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6030    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6032    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R6035    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6040    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6041    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6042    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6043    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6044    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6045    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6046    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6049    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |
| R6050    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6053    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R6054    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6055    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6056    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6057    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6058    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6059    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R6060    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6061    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6062    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6063    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R6064    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6066    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6067    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6077    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6078    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6080    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R6081    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R6082    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6090    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R6091    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R6092    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R6093    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6094    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6098    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R6099    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R6100    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R6113    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R6114    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R6115    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6116    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R6118    | ERJ6GEYJ104V | MGF CHIP 1/10W 100K     |         |
| R6119    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R6120    | ERJ6GEYJ104V | MGF CHIP 1/10W 100K     |         |
| R6121    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R6122    | ERJ6GEYJ181V | MGF CHIP 1/10W 180      |         |
| R6123    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R6124    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6126    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6127    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6130    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R6131    | ERJ6GEYJ183V | MGF CHIP 1/10W 18K      |         |
| R6132    | ERJ6GEYJ391V | MGF CHIP 1/10W 390      |         |
| R6133    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6134    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6135    | ERJ6GEYJ475V | MGF CHIP 1/10W 4.7M     |         |
| R6136    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R6137    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6138    | ERDS2TJ560T  | CARBON 1/4W 56          |         |
| R6142    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6143    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R6144    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R6146    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R6149    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R6150    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R6160    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6161    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6162    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6163    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6164    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R6165    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R6166    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R6170    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6201    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6202    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R6203    | ERJ6GEYJ274V | MGF CHIP 1/10W 270K     |         |
| R6204    | ERJ6GEYJ184V | MGF CHIP 1/10W 180K     |         |
| R6205    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6207    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6208    | ERJ6GEYJ152V | MGF CHIP 1/10W 1.5K     |         |
| R6209    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R6210    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R6211    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R6212    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K     |         |
| R6301    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6302    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R6303    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6304    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R6305    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6306    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R6307    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R7001    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7002    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7003    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R7004    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7006    | ERJ6GEYJ271V | MGF CHIP 1/10W 270      |         |
| R7007    | ERDS2TJ102   | CARBON 1/4W 1K          |         |
| R9001    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R9002    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R9004    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R9005    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R9007    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R9008    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R9009    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R9010    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R9011    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R9012    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R9201    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R9202    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R9203    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R9204    | ERJ6GEYJ224V | MGF CHIP 1/10W 220K     |         |
| R9205    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R9206    | EVMAASA00B53 | VARIABLE 5K             |         |
| R9207    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R9208    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R9209    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R9212    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R9213    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R9214    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R9215    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R9216    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R9217    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R9303    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |

## CAPACITORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C401     | ECA1HM2R2B   | ELECTROLYTIC 50V 2.2UF  |         |
| C402     | ECA1CM471B   | ELECTROLYTIC 16V 470UF  |         |
| C408     | ECA1HGE010KB | ELECTROLYTIC 50V 1UF    |         |
| C409     | ECA1VM101B   | ELECTROLYTIC 35V 100UF  |         |
| C413     | ECQB1H104KF  | POLYESTER 50V 0.1UF     |         |
| C414     | ECA1EM102B   | ELECTROLYTIC 25V 1000UF |         |
| C418     | ECA1VM221B   | ELECTROLYTIC 35V 220UF  |         |
| C459     | ECQB1H103KF3 | POLYESTER 50V 0.01UF    |         |
| C510     | ECKR2H102KB5 | CERAMIC 500V 1000PF     |         |
| C513     | ECA1EM101B   | ELECTROLYTIC 25V 100UF  |         |
| C531     | ECA1HM3R3B   | ELECTROLYTIC 50V 3.3UF  |         |
| C533     | ECA1EM101B   | ELECTROLYTIC 25V 100UF  |         |
| C534     | ECRA1HKA2R2  | ELECTROLYTIC 50V 2.2UF  |         |
| C552     | ECA1EM471B   | ELECTROLYTIC 25V 470    |         |
| C554     | ECWH12H912JS | POLYESTER 1.2KV 0.091UF | △       |
| C554     | ECWH16912JVB | POLYESTER 1.2KV 0.091UF | △       |
| C554     | F0A3C912A002 | POLYESTER 1250V 0.091UF | △       |
| C556     | ECWF2434JBB  | POLYESTER 500V 0.43UF   | △       |
| C556     | ECWF2434JSB  | POLYESTER 500V 0.43UF   | △       |
| C556     | F0C2E434A049 | POLYESTER 250V 0.43UF   | △       |
| C556     | LSCFM2434JM  | POLYESTER 500V 0.33UF   | △       |
| C558     | ECA1VM331B   | ELECTROLYTIC 35V 330UF  |         |
| C560     | ECA2EM100B   | ELECTROLYTIC 250V 10UF  | △       |
| C561     | ECA1HM2R2B   | ELECTROLYTIC 50V 2.2UF  |         |
| C563     | ECEA180V33WE | ELECTROLYTIC 180V 33UF  |         |
| C571     | ECA1HM100B   | ELECTROLYTIC 50V 10UF   |         |
| C572     | ECA1CM221B   | ELECTROLYTIC 16V 220UF  |         |
| C573     | ECKR2H122KB5 | CERAMIC 50V 1200PF      |         |
| C801     | VCKSRNG472ZX | CERAMIC 250V 4700PF     |         |
| C802     | VCKSRNG472ZX | CERAMIC 250V 4700PF     |         |
| C803     | VCKSRNG472ZX | CERAMIC 250V 4700PF     |         |
| C804     | VCKSRNG472ZX | CERAMIC 250V 4700PF     |         |
| C805     | EC0S2PP471BB | ELECTROLYTIC 180V 470UF | △       |
| C805     | ECES2PU471HG | ELECTROLYTIC 180V 470UF | △       |
| C805     | F2B2D4710012 | ELECTROLYTIC 180V 470UF | △       |
| C805     | F2B2D4710013 | ELECTROLYTIC 180V 470UF | △       |
| C806     | ECA2EM220E   | ELECTROLYTIC 250V 22UF  |         |
| C807     | J0LE00000023 | ARRESTER                | △       |
| C808     | ECQU2A823MLA | POLYESTER 250V 0.082UF  | △       |
| C809     | F1B2E101A009 | CERAMIC 250V 100PF      | △       |
| C811     | F1B2E152A012 | CERAMIC 250V 1500PF     | △       |

| Ref. No. | Part No.     | Part Name & Description  | Remarks |
|----------|--------------|--------------------------|---------|
| C1001    | ECKATS103MF  | CERAMIC 250V 0.01UF      | △       |
| C1001    | ECKETS103MF  | CERAMIC 125V 0.01UF      | △       |
| C1001    | VCKST3G103MY | CERAMIC 250V 0.01UF      | △       |
| C1001    | VCKSU3D103MY | CERAMIC 125V 0.01UF      | △       |
| C1002    | ECKATS332ME8 | CERAMIC 250V 3300PF      | △       |
| C1002    | ECKDNB332ME8 | CERAMIC 125V 3300PF      | △       |
| C1002    | ECKETS332ME8 | CERAMIC 125V 3300PF      | △       |
| C1002    | VCKST3G332MX | CERAMIC 250V 3300PF      | △       |
| C1002    | VCKSU3D332MX | CERAMIC 125V 3300PF      | △       |
| C1003    | F1B2E102A012 | CERAMIC 250V 1000PF      | △       |
| C1003    | F1B2E102A011 | CERAMIC 250V 1000PF      | △       |
| C1003    | F1B2E102A044 | CERAMIC 250V 1000PF      | △       |
| C1003    | F1B2E102A045 | CERAMIC 250V 1000PF      | △       |
| C1003    | F1B2E1020005 | CERAMIC 250V 1000PF      | △       |
| C1003    | F1B2E1020006 | CERAMIC 250V 1000PF      | △       |
| C1004    | ECEA2DU121YE | ELECTROLYTIC 200V 120UF  | △       |
| C1004    | F2A2D1210001 | ELECTROLYTIC 200V 120UF  | △       |
| C1004    | F2A2D1210003 | ELECTROLYTIC 200V 120UF  | △       |
| C1004    | VCESR2D121XE | ELECTROLYTIC 200V 120UF  | △       |
| C1005    | ECA2DHG4R7B  | ELECTROLYTIC 200V 4.7UF  |         |
| C1006    | ECKR2H221KB5 | CERAMIC 500V 220PF       |         |
| C1007    | ECJ2VB1C224K | C CHIP 16V 0.22UF        |         |
| C1009    | VCYSBRE183KX | CERAMIC 25V 0.018UF      |         |
| C1010    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C1011    | ECA1HMG470B  | ELECTROLYTIC 50V 47UF    |         |
| C1012    | ECEA1PRE331  | ELECTROLYTIC 18V 330UF   |         |
| C1013    | ECA1EM331B   | ELECTROLYTIC 25V 330UF   |         |
| C1016    | ECEA1PRE331  | ELECTROLYTIC 18V 330UF   |         |
| C1017    | ECA0JM102B   | ELECTROLYTIC 6.3V 1000UF |         |
| C1018    | ECJ2VB1E104K | C CHIP 25V 0.1UF         |         |
| C1025    | F1B2E101A009 | CERAMIC 250V 100PF       | △       |
| C1025    | F1B2E101A008 | CERAMIC 250V 100PF       | △       |
| C1025    | F1B2E101A032 | CERAMIC 250V 100PF       | △       |
| C1025    | F1B2E101A037 | CERAMIC 250V 100PF       | △       |
| C1029    | ECJ2VC1H101J | C CHIP 50V 100PF         |         |
| C1030    | VCYSBRE183KX | CERAMIC 25V 0.018UF      |         |
| C1051    | ECEA1HKAR47  | ELECTROLYTIC 50V 0.47UF  |         |
| C1052    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C1058    | ECEA0JBE101  | ELECTROLYTIC 6.3V 100UF  |         |
| C1059    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C1060    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C1070    | ECEA1CKA220B | ELECTROLYTIC 16V 22UF    |         |
| C1071    | ECJ2VC1H101J | C CHIP 50V 100PF         |         |
| C1072    | ECA0JM471    | ELECTROLYTIC 6.3V 470UF  |         |
| C3003    | ECJ2VF1E104Z | C CHIP 25V 0.1UF         |         |
| C3004    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C3006    | ECJ2VF1E104Z | C CHIP 25V 0.1UF         |         |
| C3007    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C3008    | ECJ2VC1H181J | C CHIP 50V 180PF         |         |
| C3009    | ECEA1EKA4R7  | ELECTROLYTIC 25V 4.7UF   |         |
| C3010    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C3013    | ECJ2VF1C224Z | C CHIP 16V 0.22UF        |         |
| C3015    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF   |         |
| C3016    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C3019    | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF   |         |
| C3020    | ECEA1CKA220  | ELECTROLYTIC 16V 22UF    |         |
| C3021    | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF   |         |
| C3022    | ECJ2VF1C224Z | C CHIP 16V 0.22UF        |         |
| C3023    | ECJ2VC1H680J | C CHIP 50V 68PF          |         |
| C3024    | ECJ2VF1E104Z | C CHIP 25V 0.1UF         |         |
| C3025    | ECJ2VB1E104K | C CHIP 25V 0.1UF         |         |
| C3026    | ECJ2VB1H822K | C CHIP 50V 8200PF        |         |
| C3027    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C3030    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C3031    | ECJ2VF1E104Z | C CHIP 25V 0.1UF         |         |
| C3032    | ECJ2VF1C474Z | C CHIP 16V 0.47UF        |         |
| C3034    | ECJ2VC1H181J | C CHIP 50V 180PF         |         |
| C3035    | ECJ2VC1H330J | C CHIP 50V 33PF          |         |
| C3036    | ECJ2VF1E104Z | C CHIP 25V 0.1UF         |         |
| C3038    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C3041    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C3043    | ECJ2VB1H392K | C CHIP 50V 3900PF        |         |
| C3044    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C3045    | ECEA1HKAR47  | ELECTROLYTIC 50V 0.47UF |         |
| C3046    | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF  |         |
| C3047    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF |         |
| C3048    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3050    | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF  |         |
| C3053    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3055    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3056    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3057    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3058    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3082    | ECJ2VB1H332K | C CHIP 50V 3300PF       |         |
| C3231    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C3232    | ECJ2VB1H102K | C CHIP 50V 1000PF       |         |
| C3234    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF  |         |
| C3235    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3236    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3237    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C4001    | ECJ2VF1C224Z | C CHIP 16V 0.22UF       |         |
| C4002    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4003    | ECJ2VB1H272K | C CHIP 50V 2700PF       |         |
| C4004    | ECJ2VB1H103K | C CHIP 50V 0.01UF       |         |
| C4005    | ECEA0JKA220  | ELECTROLYTIC 6.3V 22UF  |         |
| C4006    | ECJ2VB1H102K | C CHIP 50V 1000PF       |         |
| C4007    | ECEA0JKA220  | ELECTROLYTIC 6.3V 22UF  |         |
| C4008    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF  |         |
| C4009    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF   |         |
| C4010    | ECJ2VB1E333K | C CHIP 25V 0.033UF      |         |
| C4011    | ECJ2VB1H103K | C CHIP 50V 0.01UF       |         |
| C4012    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4013    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF  |         |
| C4014    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4020    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4102    | ECQB1562JF3  | POLYESTER 100V 5600PF   |         |
| C4103    | ECJ2VB1H103K | C CHIP 50V 0.01UF       |         |
| C4104    | ECJ2VB1H103K | C CHIP 50V 0.01UF       |         |
| C4105    | ECEA1CKA220  | ELECTROLYTIC 16V 22UF   |         |
| C4171    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4502    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF   |         |
| C4504    | ECEA1EKA4R7  | ELECTROLYTIC 25V 4.7UF  |         |
| C4506    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF   |         |
| C4508    | ECA1CM221B   | ELECTROLYTIC 16V 220UF  |         |
| C4509    | ECJ2VB1E473K | C CHIP 25V 0.047UF      |         |
| C4512    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF   |         |
| C4514    | ECEA1EKA4R7  | ELECTROLYTIC 25V 4.7UF  |         |
| C4516    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF   |         |
| C4518    | ECA1CM221B   | ELECTROLYTIC 16V 220UF  |         |
| C4519    | ECJ2VB1E473K | C CHIP 25V 0.047UF      |         |
| C4521    | ECA1EM102B   | ELECTROLYTIC 25V 1000UF |         |
| C4524    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C4525    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C5301    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5302    | ECEA1EKA4R7  | ELECTROLYTIC 25V 4.7UF  |         |
| C5303    | ECEA1HKAR47  | ELECTROLYTIC 50V 0.47UF |         |
| C5305    | ECEA1HKAR33  | ELECTROLYTIC 50V 0.33UF |         |
| C5306    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5307    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5308    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5401    | VCUSTBC224KB | C CHIP 16V 0.22UF       |         |
| C5402    | ECJ2VB1H222K | C CHIP 50V 2200PF       |         |
| C5403    | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF  |         |
| C5501    | ECJ2VB1E183K | C CHIP 25V 0.018UF      |         |
| C5502    | ECJ2VB1H681K | C CHIP 50V 680PF        |         |
| C5505    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF   |         |
| C5506    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C5507    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5508    | ECUV1H221JGN | C CHIP 50V 220PF        |         |
| C5510    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C5511    | ECJ2VB1E333K | C CHIP 25V 0.033UF      |         |
| C5516    | ECJ2VB1E333K | C CHIP 25V 0.033UF      |         |
| C5601    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C5602    | ECJ2VB1E104K | C CHIP 25V 0.1UF        |         |
| C5603    | ECJ2VC1H150J | C CHIP 50V 15PF         |         |
| C5604    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |

| Ref. No. | Part No.     | Part Name & Description  | Remarks |
|----------|--------------|--------------------------|---------|
| C5605    | ECJ2VB1E153K | C CHIP 25V 0.015UF       |         |
| C5902    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C5903    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C5904    | ECJ2VB1C104K | C CHIP 16V 0.1UF         |         |
| C5905    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C5906    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C5907    | ECJ2VF1E104Z | C CHIP 25V 0.1UF         |         |
| C5932    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C6001    | ECEA0JKA331  | ELECTROLYTIC 6.3V 330UF  |         |
| C6002    | ECJ2VC1H080C | C CHIP 50V 8PF           |         |
| C6003    | ECJ2VC1H100C | C CHIP 50V 10PF          |         |
| C6004    | ECJ2VB1E104K | C CHIP 25V 0.1UF         |         |
| C6006    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6009    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C6013    | ECJ2VC1H101J | C CHIP 50V 100PF         |         |
| C6017    | ECJ2VC1H101J | C CHIP 50V 100PF         |         |
| C6018    | ECJ2VC1H101J | C CHIP 50V 100PF         |         |
| C6020    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6021    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6023    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6025    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF   |         |
| C6029    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6040    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6041    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6044    | ECJ2VF1E104Z | C CHIP 25V 0.1UF         |         |
| C6201    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6202    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6203    | ECJ2VB1H332K | C CHIP 50V 3300PF        |         |
| C6204    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6207    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6208    | ECEA1CKS100  | ELECTROLYTIC 16V 10UF    |         |
| C6209    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6212    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6213    | ECEA0JKS331I | ELECTROLYTIC 6.3V 330UF  |         |
| C6214    | ECEA0JKS220  | ELECTROLYTIC 6.3V 22UF   |         |
| C6215    | ECJ2VB1H272K | C CHIP 50V 2700PF        |         |
| C6216    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6220    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C6221    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6302    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6401    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6402    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6403    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF     |         |
| C6404    | ECJ2VC1H121J | C CHIP 50V 120PF         |         |
| C6406    | ECEA1HKS010  | ELECTROLYTIC 50V 1UF     |         |
| C6408    | ECJ2VB1H222K | C CHIP 50V 2200PF        |         |
| C6410    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C7002    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C7006    | ECA0JM102B   | ELECTROLYTIC 6.3V 1000UF |         |
| C7007    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C7008    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C7010    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF     |         |
| C9001    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C9002    | ECEA1HKA33   | ELECTROLYTIC 50V 0.33UF  |         |
| C9003    | ECEA1HKA3R3I | ELECTROLYTIC 50V 3.3UF   |         |
| C9004    | ECJ2VB1C104K | C CHIP 16V 0.1UF         |         |
| C9005    | ECJ2VB1E223K | C CHIP 25V 0.022UF       |         |
| C9006    | ECJ2VB1E104K | C CHIP 25V 0.1UF         |         |
| C9007    | ECJ2VB1H333K | C CHIP 50V 0.033UF       |         |
| C9008    | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF   |         |
| C9009    | ECEA1HKA33   | ELECTROLYTIC 50V 0.33UF  |         |
| C9010    | ECJ2VB1E104K | C CHIP 25V 0.1UF         |         |
| C9013    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C9014    | ECEA1HKA4R7  | ELECTROLYTIC 50V 4.7UF   |         |
| C9015    | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF   |         |
| C9016    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C9017    | ECEA1CKA220  | ELECTROLYTIC 16V 22UF    |         |
| C9019    | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF   |         |
| C9020    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C9021    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C9022    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C9023    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C9201    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C9202    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF  |         |
| C9203    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF   |         |
| C9204    | ECQP1H102JZ3 | POLYESTER 50V 1000PF    |         |
| C9205    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C9206    | ECEA1HKA3R3I | ELECTROLYTIC 50V 3.3UF  |         |
| C9207    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C9208    | ECJ2VB1H223K | C CHIP 50V 0.022UF      |         |
| C9209    | ECJ2VB1H223K | C CHIP 50V 0.022UF      |         |
| C9210    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C9211    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF    |         |
| C9212    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C9213    | ECEA1CKA220  | ELECTROLYTIC 16V 22UF   |         |
| C9302    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C9304    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C9309    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF  |         |

## COILS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| L501     | G0D680000001 | COIL                    | △       |
| L501     | ELH5L4108    | COIL                    | △       |
| L501     | ELH5L4145    | COIL                    | △       |
| L501     | ELH5L423     | COIL                    | △       |
| L501     | G0D510000001 | COIL                    | △       |
| L553     | VLQSW07D220M | COIL 22UH               |         |
| L803     | ELF21V018A   | LINE NOISE FILTER       | △       |
| L803     | LLN63055A    | COIL                    | △       |
| L1001    | ELF15N005A   | LINE FILTER 0.5A 18MH   | △       |
| L1001    | ELF18D290A   | LINE FILTER 0.5A 18MH   | △       |
| L1001    | G0B183D00001 | LINE FILTER 0.5A 18MH   | △       |
| L1001    | J0HBLD000001 | LINE FILTER 0.5A 18MH   | △       |
| L1001    | J0HBLD000002 | LINE FILTER 0.5A 18MH   | △       |
| L1001    | VLQ80167     | LINE FILTER 0.5A 18MH   | △       |
| L1001    | VLQ80170     | LINE FILTER 0.6A 18MH   | △       |
| L1002    | VLQ8AB7D220K | COIL 22UH               |         |
| L1003    | VLQ8AB7D100K | COIL 10UH               |         |
| L1006    | J0JHB0000021 | FILTER                  |         |
| L1007    | G0C101KA0045 | COIL 100UH              |         |
| L3001    | G0C390KA0045 | COIL 39UH               |         |
| L3002    | ELESN101KA   | COIL 100UH              |         |
| L3005    | G0C330KA0045 | COIL 33UH               |         |
| L3010    | ELESN470KA   | COIL 47UH               |         |
| L3231    | ELESN221KA   | COIL 220UH              |         |
| L3301    | ELESN101KA   | COIL 100UH              |         |
| L4001    | ELELN153KA   | COIL 15MH               |         |
| L4002    | ELESN101KA   | COIL 100UH              |         |
| L4004    | G0C220KA0045 | COIL 22UH               |         |
| L4101    | ELESN471KA   | COIL 470UH              |         |
| L5901    | ELESN101KA   | COIL 100UH              |         |
| L5902    | ELESN470KA   | COIL 47UH               |         |
| L6201    | ELEXT101KE04 | COIL 100UH              |         |
| L6401    | ELEXT101KE04 | COIL 100UH              |         |
| L6402    | J0JBC0000022 | CHIP BEAD INDUCTOR      |         |
| L6403    | J0JBC0000022 | CHIP BEAD INDUCTOR      |         |
| L6404    | J0JBC0000022 | CHIP BEAD INDUCTOR      |         |
| L6405    | J0JBC0000022 | CHIP BEAD INDUCTOR      |         |
| L7002    | ELESN100KA   | COIL 10UH               |         |
| L9001    | ELESN101KA   | COIL 100UH              |         |
| L9201    | ELESN101KA   | COIL 100UH              |         |
| L9202    | ELESN101KA   | COIL 100UH              |         |
| L9301    | ELESN101KA   | COIL 100UH              |         |

## CRYSTAL OSCILLATOR

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| X5501    | H2A503300012 | CRYSTAL OSCILLATOR      |         |
| X5601    | VXS0190-TB   | CRYSTAL OSCILLATOR      |         |
| X6001    | VXS0784      | CRYSTAL OSCILLATOR      |         |

## PIN HEADERS

| Ref. No. | Part No.     | Part Name & Description          | Remarks |
|----------|--------------|----------------------------------|---------|
| P552     | LSJWS4N360LL | PIN HEADER                       |         |
| P801     | VEKS5809     | CONNECTOR CABLE W/OUT PLUG, 200V |         |

| Ref. No. | Part No.     | Part Name & Description            | Remarks |
|----------|--------------|------------------------------------|---------|
| P803     | LSJP0814     | CONNECTOR 2P                       |         |
| P3001    | K1KA12A00232 | CONNECTOR 12P                      |         |
| P4001    | VJSS0888     | FE CONNECTOR 2P                    |         |
| P4002    | LSJWR6N120CL | PARALLEL WIRE                      |         |
| P4591    | K1KA04A00242 | CONNECTOR 4P                       |         |
| P5301    | LSJWR4N490LL | CONNECTOR CABLE W/OUT PLUG, 12V DC |         |
| P6001    | K1KA05A00268 | CONNECTOR 5P                       |         |
| P6201    | K1KA12A00234 | PIN HEADER                         |         |

## SWITCHES

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| SW6001   | LSSH0002     | LEAF SWITCH-SAFETY TAB  |         |
| SW6002   | K0N107C00002 | PUSH SWITCH             |         |
| SW6301   | EVQ21405R    | PUSH SWITCH             |         |
| SW6302   | EVQ21405R    | PUSH SWITCH             |         |
| SW6303   | EVQ21405R    | PUSH SWITCH             |         |
| SW6304   | EVQ21405R    | PUSH SWITCH             |         |
| SW6305   | EVQ21405R    | PUSH SWITCH             |         |
| SW6306   | EVQ21405R    | PUSH SWITCH             |         |
| SW6307   | EVQ21405R    | PUSH SWITCH             |         |
| SW6308   | EVQ21405R    | PUSH SWITCH             |         |
| SW6309   | EVQ21405R    | PUSH SWITCH             |         |
| SW6310   | EVQ21405R    | PUSH SWITCH             |         |
| SW6311   | EVQ21405R    | PUSH SWITCH             |         |

## FUSE &amp; PROTECTO

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| F801     | K5D402AB0002 | FUSE 125V 4A            | △       |
| F801     | K5D402ADA002 | FUSE 125V 4A            | △       |
| F801     | K5D402ADA006 | FUSE 125V 4A            | △       |
| F801     | K5D402AQ0002 | FUSE 125V 4A            | △       |
| F1001    | K5D162AQ0004 | FUSE 125V 1.6A          | △       |
| F1001    | K5D162ADA001 | FUSE 125V 1.6A          | △       |
| F1001    | K5D162ADA008 | FUSE 125V 1.6A          | △       |
| PR1001   | UNH000600A   | IC PROTECTOR 1.5A       | △       |
| PR1001   | B1ZAZ0000040 | IC PROTECTOR 1.5A       | △       |
| PR1001   | LSSF009A25E  | IC PROTECTOR 1.5A       | △       |
| PR1002   | UNH000600A   | IC PROTECTOR 1.5A       | △       |
| PR1002   | B1ZAZ0000040 | IC PROTECTOR 1.5A       | △       |
| PR1002   | LSSF009A25E  | IC PROTECTOR 1.5A       | △       |
| PR1070   | LSSF009AR37E | IC PROTECTOR 1.5A       | △       |

## RELAY

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| RL801    | LSSY0004     | RELAY                   | △       |
| RL801    | K6B1AGA00042 | RELAY, 120V             | △       |
| RL801    | TSEH0013     | RELAY                   | △       |
| RL801    | TSEH1860-1   | RELAY                   | △       |

## TRANSFORMER

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| T501     | ETH09K8AZ    | TRANSFORMER             |         |
| T551     | KFT3AB400F   | FLYBACK TRANSFORMER     | △       |
| T1001    | ETS28AD2J3AC | SW TRANSFORMER          | △       |
| T1001    | LSTP0105     | TRANSFORMER             | △       |
| T1001    | VTPS0042     | SW TRANSFORMER          | △       |
| T4101    | G2A342C00003 | TRANSFORMER             |         |

## JACKS

| Ref. No. | Part No.     | Part Name & Description       | Remarks |
|----------|--------------|-------------------------------|---------|
| JK4591   | K2HC103B0129 | FRONT AUDIO/VIDEO JACK SOCKET |         |
| JK4701   | K2HA104B0007 | EARPHONE JACK SOCKET          |         |

## MISCELLANEOUS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| 483      | XYN3+F10S    | SCREW W/WASHER, STEEL   |         |
| 484      | XTW3+10J     | TAPPING SCREW, STEEL    |         |
| 711      | PNA4611M00HC | INFRARED RECEIVER UNIT  |         |
| 719      | VMFS0136     | SHEET, NYLON-RAYON      |         |

| Ref. No. | Part No.   | Part Name & Description | Remarks |
|----------|------------|-------------------------|---------|
| 728      | LUS63008A  | HEAT SINK               |         |
| 743      | ENG36715G  | TUNER, UHF/VHF NR       |         |
| 751      | LML69001A  | ANODE LEAD CLAMPER      |         |
| 760      | TUC77628   | HEAT SINK               |         |
| 768      | TUC77603-1 | HEAT SINK               |         |
| 771      | EYF52BC    | FUSE HOLDER             |         |

## 12.3.3. HEAD AMP C.B.A.

(Model: A, B, C, D, G, H, I)

## COMPARISON CHART OF MODELS &amp; MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

## INTEGRATED CIRCUITS

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|----------|-------------------------|---------|
| IC3501   | AN3371SB | IC, LINEAR              |         |

## RESISTORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R3507    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |

## CAPACITORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C3504    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3505    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF   |         |
| C3506    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3508    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3511    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3512    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3513    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3528    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3529    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |

## COILS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| L3501    | G0C101KA0045 | COIL 100UH              |         |

## PIN HEADERS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| P3501    | K1KB08B00050 | CONNECTOR 8P            |         |

## 12.3.4. HEAD AMP C.B.A.

(Model: E, F, J)

## COMPARISON CHART OF MODELS &amp; MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

## COMPARISON CHART OF MODELS &amp; MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

## INTEGRATED CIRCUITS

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|----------|-------------------------|---------|
| IC3501   | AN3361SB | IC, LINEAR              |         |

## RESISTORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R3501    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R3502    | ERJ6GEYJ560V | MGF CHIP 1/10W 56       |         |
| R3503    | ERJ6GEYJ560V | MGF CHIP 1/10W 56       |         |
| R3504    | ERJ6GEYJ560V | MGF CHIP 1/10W 56       |         |
| R3505    | ERJ6GEYJ560V | MGF CHIP 1/10W 56       |         |
| R3506    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R3507    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |

## CAPACITORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C3504    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3505    | ECEALCKA470  | ELECTROLYTIC 16V 47UF   |         |
| C3506    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3507    | ECJ2VB1H102K | C CHIP 50V 1000PF       |         |
| C3508    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3511    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3512    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3513    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3519    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3520    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3523    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3524    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3528    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3529    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3532    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3533    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |

## COILS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| L3501    | G0C101KA0045 | COIL 100UH              |         |

## PIN HEADERS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| P3501    | K1KB12B00044 | CONNECTOR 12P           |         |

## 12.3.5. CRT C.B.A.

(Model: A, B, C, D, E, F)

## TRANSISTORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| Q351     | 2SC14730Q    | TRANSISTOR SI NPN       |         |
| Q351     | B1AACN000014 | TRANSISTOR SI NPN       |         |
| Q351     | B1BAAN000029 | TRANSISTOR SI NPN       |         |
| Q351     | 2SC1473A-Q   | TRANSISTOR SI NPN       |         |
| Q352     | 2SC14730Q    | TRANSISTOR SI NPN       |         |
| Q352     | B1AACN000014 | TRANSISTOR SI NPN       |         |
| Q352     | B1BAAN000029 | TRANSISTOR SI NPN       |         |
| Q352     | 2SC1473A-Q   | TRANSISTOR SI NPN       |         |
| Q353     | 2SC14730Q    | TRANSISTOR SI NPN       |         |
| Q353     | B1AACN000014 | TRANSISTOR SI NPN       |         |
| Q353     | B1BAAN000029 | TRANSISTOR SI NPN       |         |
| Q353     | 2SC1473A-Q   | TRANSISTOR SI NPN       |         |

## DIODES

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D351     | MAZ41500MF   | DIODE ZENER 15V         |         |
| D351     | B0BA01400041 | DIODE ZENER 15V         |         |

## RESISTORS

| Ref. No. | Part No.    | Part Name & Description | Remarks |
|----------|-------------|-------------------------|---------|
| R351     | ERGLANJ153H | METAL OXIDE 1W 15K      |         |
| R352     | ERGLANJ153H | METAL OXIDE 1W 15K      |         |
| R353     | ERGLANJ153H | METAL OXIDE 1W 15K      |         |
| R354     | ERD25TJ272  | CARBON 1/4W 2.7K        |         |
| R356     | ERD25TJ272  | CARBON 1/4W 2.7K        |         |
| R357     | ERDS2TJ392  | CARBON 1/4W 3.9K        |         |
| R358     | ERDS2TJ392  | CARBON 1/4W 3.9K        |         |
| R359     | ERDS2TJ392  | CARBON 1/4W 3.9K        |         |
| R360     | ERDS2TJ391  | CARBON 1/4W 390         |         |
| R361     | ERDS2TJ391  | CARBON 1/4W 390         |         |
| R362     | ERDS2TJ391  | CARBON 1/4W 390         |         |
| R363     | ERDS2TJ181T | CARBON 1/4W 180         |         |
| R364     | ERDS2TJ181T | CARBON 1/4W 180         |         |
| R365     | ERDS2TJ181T | CARBON 1/4W 180         |         |
| R366     | ERD25TJ272  | CARBON 1/4W 2.7K        |         |

## CAPACITORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C351     | F1D1H391A012 | CERAMIC 50V 390PF       |         |
| C352     | F1D1H391A012 | CERAMIC 50V 390PF       |         |
| C353     | F1D1H471A012 | CERAMIC 50V 470PF       |         |
| C354     | F1B3D1020008 | CERAMIC 2KV 1000PF      |         |

## PIN HEADERS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| P355     | K3B09BA00006 | CRT SOCKET              |         |

## MISCELLANEOUS

| Ref. No. | Part No.  | Part Name & Description | Remarks |
|----------|-----------|-------------------------|---------|
| 153      | TMM7443-1 | CLAMPER                 |         |

## PIN HEADERS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| P353     | K3B10AA00001 | CRT SOCKET              |         |

## 12.3.6. CRT C.B.A.

(Model: G, H, I, J)

## MISCELLANEOUS

| Ref. No. | Part No.  | Part Name & Description | Remarks |
|----------|-----------|-------------------------|---------|
| 153      | TMM7443-1 | CLAMPER                 |         |

## COMPARISON CHART OF MODELS &amp; MARKS

| MODEL       | MARK |
|-------------|------|
| PV-C1323    | A    |
| PV-C1323-K  | B    |
| PV-C1333W   | C    |
| PV-C1333W-K | D    |
| PV-C1343    | E    |
| PV-C1353W   | F    |
| PV-C2023    | G    |
| PV-C2023-K  | H    |
| PV-C2033W   | I    |
| PV-C2063    | J    |
| -----       | K    |

## TRANSISTORS

| Ref. No. | Part No.   | Part Name & Description | Remarks |
|----------|------------|-------------------------|---------|
| Q351     | 2SC3063    | TRANSISTOR SI NPN       |         |
| Q351     | 2SC3271F-N | TRANSISTOR SI NPN       |         |
| Q351     | 2SC3619    | TRANSISTOR SI NPN       |         |
| Q352     | 2SC3063    | TRANSISTOR SI NPN       |         |
| Q352     | 2SC3271F-N | TRANSISTOR SI NPN       |         |
| Q352     | 2SC3619    | TRANSISTOR SI NPN       |         |
| Q353     | 2SC3063    | TRANSISTOR SI NPN       |         |
| Q353     | 2SC3271F-N | TRANSISTOR SI NPN       |         |
| Q353     | 2SC3619    | TRANSISTOR SI NPN       |         |

## DIODES

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D351     | MAZ41500MF   | DIODE ZENER 15V         |         |
| D351     | B0BA01400041 | DIODE ZENER 15V         |         |

## RESISTORS

| Ref. No. | Part No.    | Part Name & Description | Remarks |
|----------|-------------|-------------------------|---------|
| R351     | ERG2ANJ153H | METAL OXIDE 2W 15K      |         |
| R352     | ERG2ANJ153H | METAL OXIDE 2W 15K      |         |
| R353     | ERG2ANJ153H | METAL OXIDE 2W 15K      |         |
| R354     | ERD25TJ272  | CARBON 1/4W 2.7K        |         |
| R355     | ERD25TJ272  | CARBON 1/4W 2.7K        |         |
| R356     | ERD25TJ272  | CARBON 1/4W 2.7K        |         |
| R357     | ERDS2TJ392  | CARBON 1/4W 3.9K        |         |
| R358     | ERDS2TJ392  | CARBON 1/4W 3.9K        |         |
| R359     | ERDS2TJ392  | CARBON 1/4W 3.9K        |         |
| R360     | ERDS2TJ391  | CARBON 1/4W 390         |         |
| R361     | ERDS2TJ391  | CARBON 1/4W 390         |         |
| R362     | ERDS2TJ391  | CARBON 1/4W 390         |         |
| R363     | ERDS2TJ121  | CARBON 1/4W 120         |         |
| R364     | ERDS2TJ121  | CARBON 1/4W 120         |         |
| R365     | ERDS2TJ121  | CARBON 1/4W 120         |         |

## CAPACITORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C351     | F1D1H471A012 | CERAMIC 50V 470PF       |         |
| C352     | F1D1H471A012 | CERAMIC 50V 470PF       |         |
| C353     | F1D1H561A012 | CERAMIC 50V 560PF       |         |
| C354     | F1B3D1020008 | CERAMIC 2KV 1000PF      |         |



# 13 EXPLODED VIEWS (Model: PV-C2523-K)

## 13.1. MECHANISM (TOP) SECTION

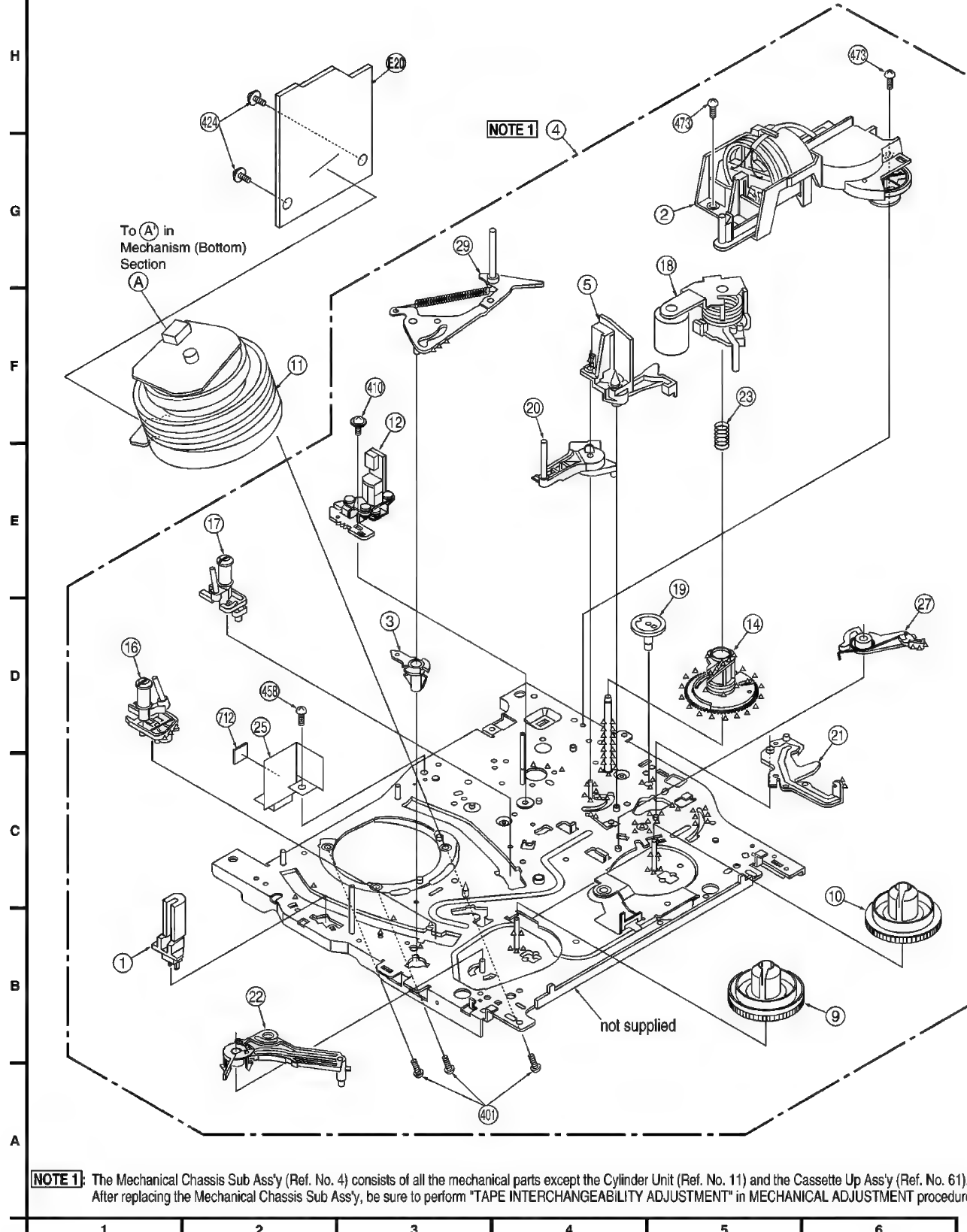
### ① MECHANISM (TOP) SECTION

#### LUBRICATION POINTS

When the marked parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

| Mark | Kind of Lubricant | Availability           | Part Number |
|------|-------------------|------------------------|-------------|
| △△△  | Grease            | Available from Factory | VFKS0081    |

Note: Parts with no Ref. No. in "EXPLODED VIEWS" are not supplied.  
And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.





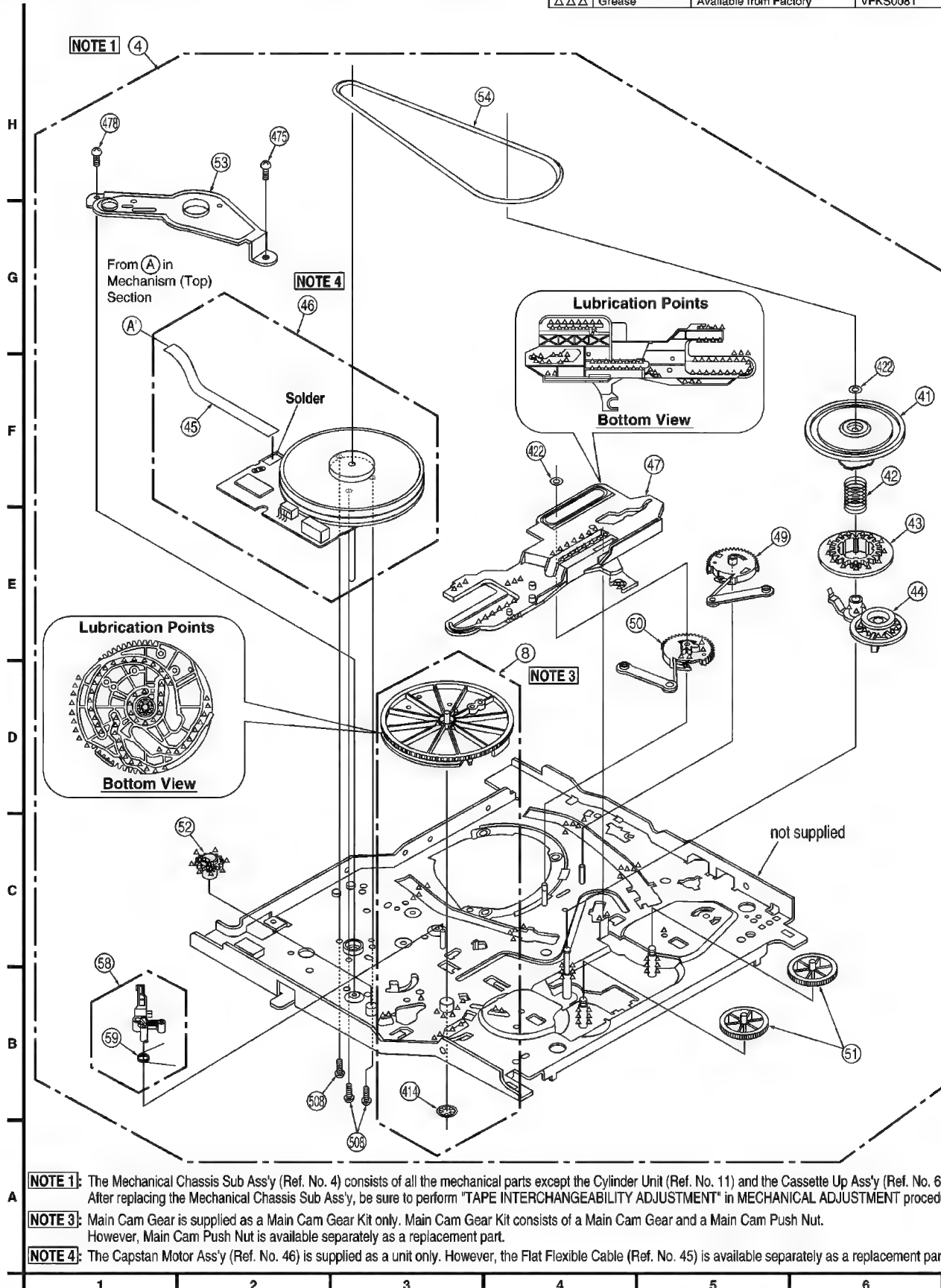
## 13.2. MECHANISM (BOTTOM) SECTION

### ② MECHANISM (BOTTOM) SECTION

#### LUBRICATION POINTS

When the marked parts are replaced, apply the recommended lubricants or adhesive for better maintenance of the unit.

| Mark | Kind of Lubricant | Availability           | Part Number |
|------|-------------------|------------------------|-------------|
| △△△  | Grease            | Available from Factory | VFKS0081    |

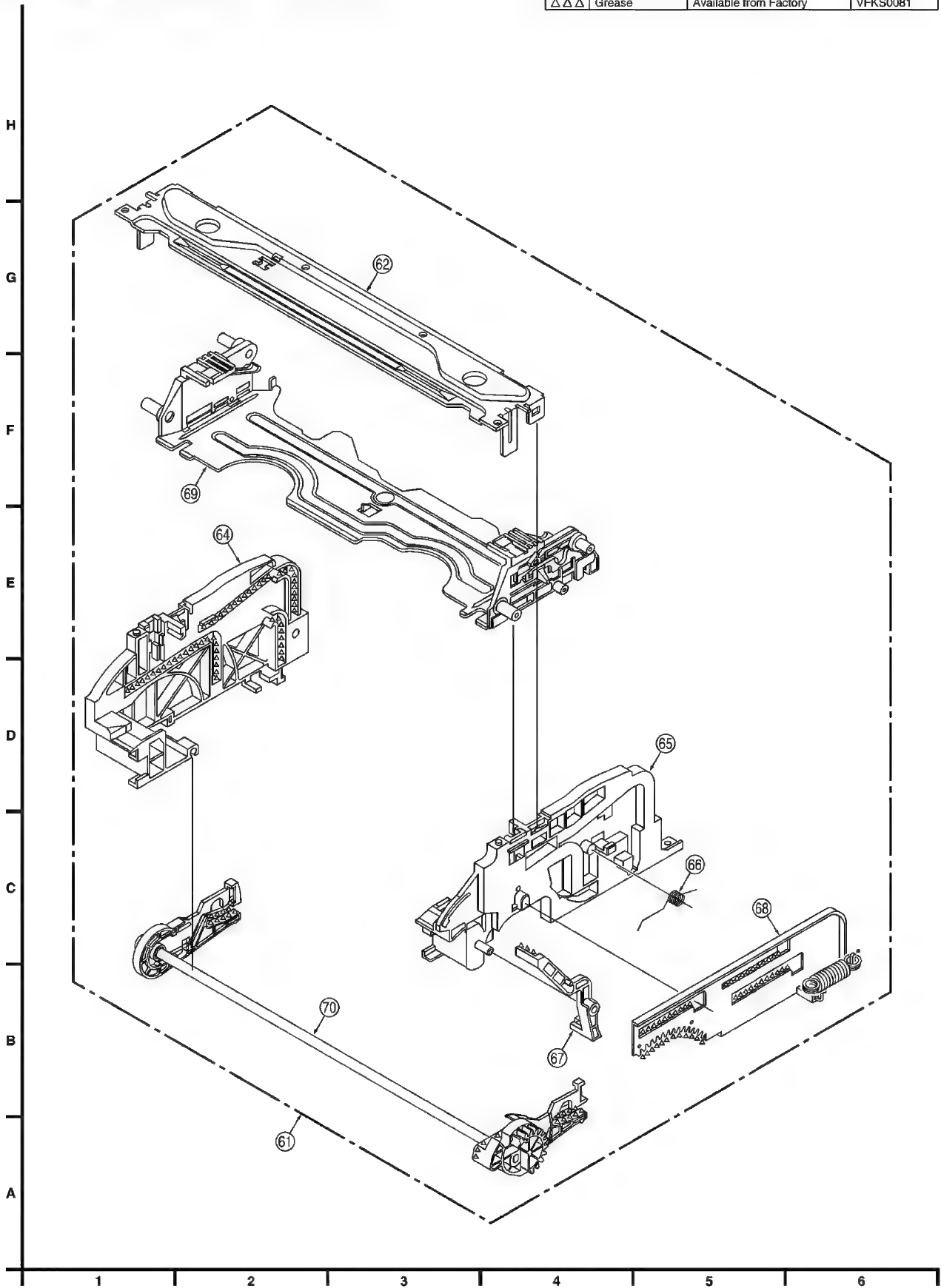


13.3. CASSETTE UP COMPARTMENT SECTION

③ CASSETTE UP  
COMPARTMENT SECTION

LUBRICATION POINTS  
When the marked parts are replaced, apply the recommended lubricants  
or adhesive for better maintenance of the unit.


| Mark | Kind of Lubricant | Availability           | Part Number |
|------|-------------------|------------------------|-------------|
| △△△  | Grease            | Available from Factory | VFKS0081    |

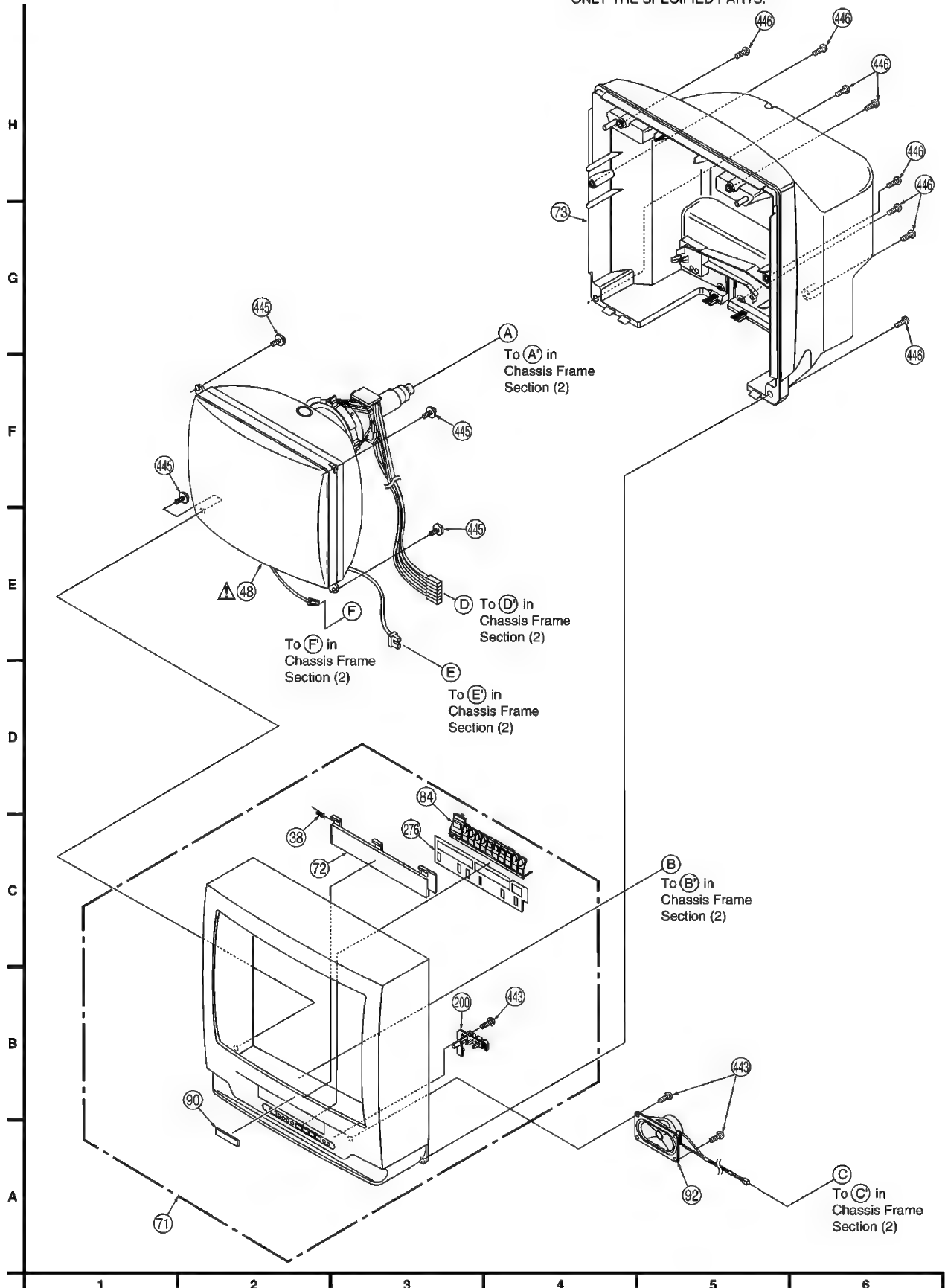


## 13.4. CHASSIS FRAME SECTION (1)


### ④ CHASSIS FRAME SECTION (1)

#### IMPORTANT SAFETY NOTICE

COMPONENTS IDENTIFIED BY THE SIGN  HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.



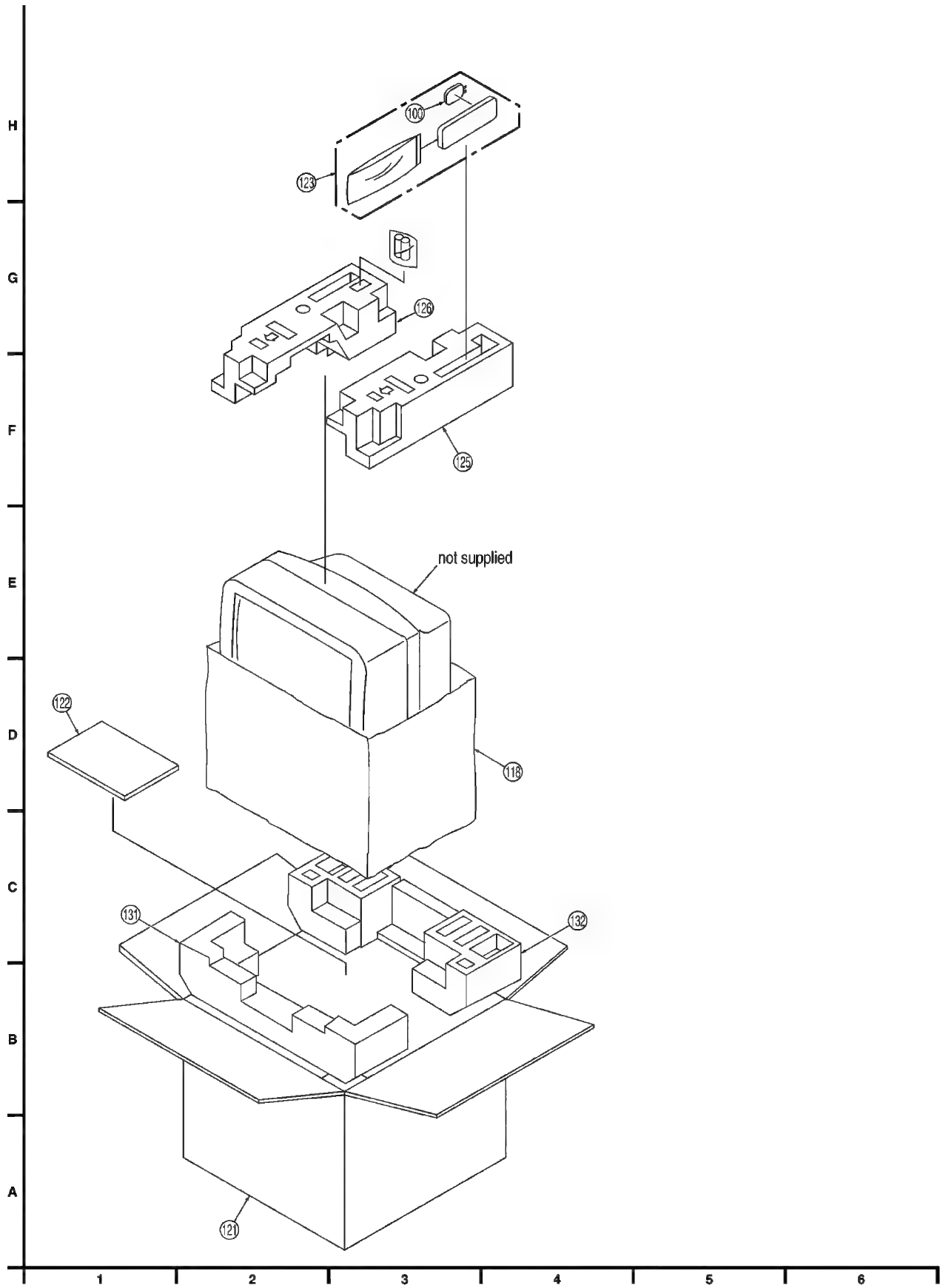
## ⑤ CHASSIS FRAME SECTION (2)

COMPONENTS IDENTIFIED BY THE SIGN  HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.



## 13.6. PACKING PARTS AND ACCESSORIES SECTION

### ⑥ PACKING PARTS AND ACCESSORIES SECTION



# 14 REPLACEMENT PARTS LISTS (Model: PV-C2523-K)

**BEFORE REPLACING PARTS, READ THE FOLLOWING:**

## 14.1. REPLACEMENT NOTES

### 14.1.1. General Notes

1. Use only original replacement parts:

To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.

#### 2. IMPORTANT SAFETY NOTICE

Components identified by the sign  $\triangle$  have special characteristics important for safety. When replacing any of these components, use only the specified parts.

#### 3. SPECIAL NOTE

All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.

4. Parts with no Ref. No. in "EXPLODED VIEWS" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
5. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.
6. Definition of Parts supplier:
  - a. Parts with mark "MKE" in the Remarks column are supplied from MKE.
  - b. Parts without mark in the Remarks column are supplied from MKA.
7. Item numbers with capital letter E (Example: E10, E20,...) in the Ref. No. column are shown in the exploded views.
8. Parts whose Ref. Nos. are the same are interchangeable as replacement parts. Any of these parts may be ordered and used as a replacement part.

### 14.1.2. Mechanical Replacement Notes

1. Section No. of parts shown in Exploded Views are indicated in the Remarks column.
2. The Mechanical Chassis Sub Ass'y (Ref. No. 4) consists of all the mechanical parts except the Cylinder Unit (Ref. No. 11) and the Cassette Up Ass'y (Ref. No. 61).  
After replacing the Mechanical Chassis Sub Ass'y, be sure to perform "TAPE INTERCHANGEABILITY ADJUSTMENT" in MECHANICAL ADJUSTMENT procedures.
3. In early units, a washer is used.  
When servicing the washer or the P5 Arm Unit, replace only the P5 Arm Unit with a new one, and remove the washer.
4. Main Cam Gear is supplied as a Main Cam Gear Kit (Ref. No. 8) only. Main Cam Gear Kit consists of a Main Cam Gear and a Main Cam Push Nut. However, Main Cam Push Nut is available separately as a replacement part.
5. The Capstan Motor Ass'y (Ref. No. 46) is supplied as a unit only. However, the Flat Flexible Cable (Ref. No. 45) is

available separately as a replacement part.

6. The Infrared Remote Control Unit (Ref. No. 123) replacement part is available as a complete assembly unit only. Do not try to disassemble the Infrared Remote Control Unit. However, the battery cover is available separately as a replacement part.
7. Main Cam Push Nut (Ref. No. 414) is not reusable. If removed, install a new one.

### 14.1.3. Electrical Replacement Notes

1. Unless otherwise specified;  
All resistors are in  $\Omega$ , K = 1,000  $\Omega$ , M = 1,000 k $\Omega$ .
2. Abbreviation
 

|             |  |
|-------------|--|
| RTL:        | Retention Time Limited   |
|             | This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available. |
| NR:         | Non Repairable Board Ass'y   |
| MGF CHIP:   | Metal Glaze Film Chip  |
| C CHIP:     | Ceramic Chip   |
| COMPLX CMP: | Complex Component  |
| W FLMPRF:   | Wirewound Flameproof   |
| C.B.A.:     | Circuit Board Assembly   |
| P.C.B.:     | Printed Circuit Board  |
| E.S.D.:     | Electrostatically Sensitive Devices  |
3. When replacing 0  $\Omega$  resistor, a wire can be substituted for it.
4. Since the UHF/VHF TUNER/TV DEMODULATOR UNIT (Ref. No. 743) has already been pre-adjusted at the factory, do not try to adjust the UHF/VHF TUNER/TV DEMODULATOR UNIT. The UHF/VHF TUNER/TV DEMODULATOR UNIT replacement part is available as a complete assembly unit only.
5. EEPROM IC (IC6004) replacement note:  
There are 2 types of EEPROM IC (IC6004) used on the Main C.B.A. (DIP TYPE and SOP TYPE). However, these are same reliability, please refer to "TV/VCR MAIN C.B.A." in CIRCUIT BOARD LAYOUT.
6. TV/VCR MAIN C.B.A. replacement note:  
When the TV/VCR MAIN C.B.A.s shown below are replaced, the Jumper wire(J801 or J810) of the new TV/VCR MAIN C.B.A. must be cut before use. If the Jumper wire isn't cut, the power does not turned on to the TV circuit.  
As for the location of the Jumper wire, please refer to "TV/VCR MAIN C.B.A." in CIRCUIT BOARD LAYOUT.

## COMPARISON CHART OF MODELS &amp; MARKS

| MODEL      | MARK |
|------------|------|
| -----      | A    |
| -----      | B    |
| -----      | C    |
| -----      | D    |
| -----      | E    |
| -----      | F    |
| -----      | G    |
| -----      | H    |
| -----      | I    |
| -----      | J    |
| PV-C2523-K | K    |

## 14.2. MECHANICAL REPLACEMENT PARTS LIST

Definition of Parts supplier:

1. Parts with mark "MKE" in the Remarks column are supplied from MKE.
2. Parts without mark in the Remarks column are supplied from MKA.

## MECHANICAL REPLACEMENT PARTS

| Ref. No. | Part No.   | Part Name & Description                | Remarks |
|----------|------------|--|---------|
| 1        | VBSS0033   | FULL ERASE HEAD                        | 1       |
| 2        | LSXK0109   | MOTOR BLOCK UNIT                       | 1       |
| 3        | LSDB0045   | TENSION ARM BOSS                       | 1       |
| 4        | LSXY0463   | MECHANICAL CHASSIS SUB ASS'Y           | 1,2 RTL |
| 5        | LSMD0209   | OPENER PIECE                           | 1       |
| 8        | LSVD0007   | MAIN CAM GEAR KIT                      | 2       |
| 9        | LSDR0004   | S REEL TABLE                           | 1       |
| 10       | LSDR0005   | T REEL TABLE                           | 1       |
| 11       | LSEG0013   | CYLINDER UNIT                          | 1       |
| 12       | LSEH0006   | AUDIO CONTROL/ERASE HEAD UNIT          | 1       |
| 14       | LSDG0112   | LIFT GEAR                              | 1       |
| 16       | VXDS0213   | LOADING POST BASE-S UNIT               | 1       |
| 17       | VXDS0214   | LOADING POST BASE-T UNIT               | 1       |
| 18       | LSXL0079   | PINCH ARM UNIT                         | 1       |
| 19       | LSDG0110   | INTERMEDIATE GEAR A                    | 1       |
| 20       | LSXL0078   | P5 ARM UNIT                            | 1       |
| 21       | LSML0360   | DRIVE RACK ARM                         | 1       |
| 22       | LSXL0077   | TENSION CONTROL ARM UNIT               | 1       |
| 23       | LSMB0282   | PINCH ASSIST SPRING                    | 1       |
| 25       | LSSC0518   | A/C SHIELD PLATE                       | 1       |
| 27       | VXLS1130   | T BRAKE UNIT                           | 1       |
| 29       | VXLS1129   | TENSION ARM UNIT                       | 1       |
| 38       | LSMB0221   | CASSETTE DOOR SPRING                   | 4       |
| 41       | VXPS0389   | CENTER CLUTCH UNIT                     | 2       |
| 42       | VMBS1151   | CHANGING GEAR SPRING                   | 2       |
| 43       | LSDG0114   | CHANGING GEAR                          | 2       |
| 44       | VXLS1091   | IDLER ARM UNIT                         | 2       |
| 45       | LSJW0027   | FLAT FLEXIBLE CABLE W/OUT PLUG, 12V DC | 2       |
| 46       | LSEM0078   | CAPSTAN MOTOR ASS'Y                    | 2       |
| 47       | LSMM0007   | MAIN ROD                               | 2       |
| 48       | LXQVB01250 | COLOR PICTURE TUBE UNIT                | 4 A     |
| 49       | VXLS1099   | S LOADING ARM UNIT                     | 2       |
| 50       | VXLS1098   | T LOADING ARM UNIT                     | 2       |
| 51       | LSDG0116   | REEL GEAR                              | 2       |
| 52       | LSDG0111   | INTERMEDIATE GEAR B                    | 2       |

| Ref. No. | Part No.     | Part Name & Description            | Remarks |
|----------|--------------|------------------------------------|---------|
| 53       | LSMA0532     | SUPPORT ANGLE                      | 2       |
| 54       | LSDV0009     | CAPSTAN BELT SQUARE, ELASTOMER 2MM | 2       |
| 58       | LSXL0087     | SS BRAKE ARM UNIT                  | 2       |
| 59       | LSMB0196     | SS BRAKE SPRING                    | 2       |
| 60       | VMFS0311     | CUSHION                            | 5       |
| 61       | LSXY0483     | CASSETTE UP ASS'Y                  | 3,5     |
| 62       | LSMA0352     | TOP PLATE                          | 3       |
| 64       | LSMD0174     | SIDE PLATE L                       | 3       |
| 65       | LSMD0173     | SIDE PLATE R                       | 3       |
| 66       | LSMB0218     | SUPPORT SPRING                     | 3       |
| 67       | LSML0096     | OPENER LEVER                       | 3       |
| 68       | VXLS1111     | DRIVE RACK UNIT                    | 3       |
| 69       | LSXA0497     | HOLDER UNIT                        | 3       |
| 70       | VXLS1110     | WIPER ARM UNIT                     | 3       |
| 71       | LXQKY03252   | FRONT CABINET ASS'Y                | 4       |
| 72       | LSKF0453     | CASSETTE DOOR-LID                  | 4       |
| 73       | LXQKV01252   | REAR COVER UNIT                    | 4       |
| 84       | LBX61070B    | OPERATION BUTTON                   | 4       |
| 90       | TBM173052    | BADGE, ABS RESIN                   | 4       |
| 91       | LXQUS01252K  | TOP SHIELD PLATE ASS'Y             | 5       |
| 92       | LXQAS01J13   | SPEAKER UNIT                       | 4       |
| 100      | VKFS2235     | BATTERY COVER                      | 6       |
| 118      | LEB64005A    | BAG, POLYETHYLENE                  | 6       |
| 121      | LSPG1447     | PACKING CASE, PAPER                | 6       |
| 122      | LSQF0717     | FAN BAG                            | 6       |
| 123      | LSQ0392      | INFRARED REMOTE CONTROL UNIT       | 6       |
| 125      | LPJ61034A    | TOP CUSHION RIGHT, STYROFOAM       | 6       |
| 126      | LPJ61033A    | TOP CUSHION LEFT, STYROFOAM        | 6       |
| 131      | LPJ62033A    | BOTTOM CUSHION FRONT, STYROFOAM    | 6       |
| 132      | LPJ62034A    | BOTTOM CUSHION REAR, STYROFOAM     | 6       |
| 153      | TMM7443-1    | CLAMPER                            | 5       |
| 155      | TMM76403-1   | CLAMPER                            | 5       |
| 200      | LKK683009A   | PANEL LIGHT                        | 4       |
| 272      | TMM77412     | CLAMPER                            | 5       |
| 276      | LSMF0046     | SHEET                              | 4       |
| 291      | LML69002A    | CLAMPER                            | 5       |
| 401      | VHDS0475     | SCREW, STEEL                       | 1       |
| 405      | VHDS0496     | SCREW W/WASHER, STEEL              | 5       |
| 410      | VHDS0498     | SCREW W/WASHER, STEEL              | 1       |
| 414      | VHNS0070     | MAIN CAM PUSH NUT, STEEL           | 2       |
| 422      | XWGV2D5G     | WASHER, NYLON                      | 2       |
| 424      | XYC26+SF6J   | SCREW W/WASHER, STEEL              | 1       |
| 432      | XTV3+8JR     | TAPPING SCREW, STEEL               | 5       |
| 443      | XTV4+12A     | TAPPING SCREW, STEEL               | 4       |
| 445      | LHT60001Y    | SCREW W/WASHER, STEEL              | 4       |
| 446      | XTV4+16A     | TAPPING SCREW, STEEL               | 4       |
| 449      | VHDS0493     | TAPPING SCREW, STEEL               | 5       |
| 450      | VHDS0309     | SCREW, STEEL                       | 5       |
| 458      | XTV3+8J      | TAPPING SCREW, STEEL               | 1       |
| 460      | XTN4+12A     | TAPPING SCREW, STEEL               | 5       |
| 473      | XYN26+C6     | SCREW W/WASHER, STEEL              | 1       |
| 475      | XTV26+5FJ    | TAPPING SCREW, STEEL               | 2       |
| 478      | VHDS0495     | SCREW, STEEL                       | 2       |
| 483      | XYN3+F10S    | SCREW W/WASHER, STEEL              | 5       |
| 484      | XTW3+10J     | TAPPING SCREW, STEEL               | 5       |
| 487      | XYN3+J8      | SCREW W/WASHER, STEEL              | 5       |
| 508      | XTB26+6J     | TAPPING SCREW, STEEL               | 2       |
| 711      | PNA4611M00HC | INFRARED RECEIVER UNIT             | 5       |
| 712      | VMTS0035     | CUSHION, RUBBER                    | 1       |
| 719      | VMFS0136     | SHEET, NYLON-RAYON                 | 5       |
| 728      | LUS63008A    | HEAT SINK                          | 5       |
| 741      | LSJA0362     | AC CORD W/PLUG, 120V               | 5 A     |
| 741      | LSJA0343     | AC CORD W/PLUG, 120V               | 5 A     |
| 741      | LSJA0364     | AC CORD W/PLUG, 120V               | 5 A     |
| 743      | ENG36709GL   | TUNER, UHF/VHF NR                  | 5       |
| 746      | LUS63001A    | HEAT SINK                          | 5       |
| 751      | LML69001A    | ANODE LEAD CLAMPER                 | 5       |
| 760      | TUC77628     | HEAT SINK                          | 5       |
| 771      | EYF52BC      | FUSE HOLDER                        | 5       |
| E10      | LSEP2083D    | TV/VCR MAIN C.B.A.                 | 5 RTL   |
| E20      | LSEP2008A    | HEAD AMP C.B.A.                    | 1 RTL   |

| Ref. No. | Part No.  | Part Name & Description | Remarks |
|----------|-----------|-------------------------|---------|
| E50      | LRP63022E | CRT C.B.A.              | 5 RTL   |

## SERVICE FIXTURES AND TOOLS

| Ref. No. | Part No.   | Part Name & Description      | Remarks |
|----------|------------|------------------------------|---------|
|          | VFMS0003H6 | VHS ALIGNMENT TAPE           | MKE     |
|          | VFKS0081   | GREASE                       | MKE     |
|          | VFK0329    | POST ADJUSTMENT DRIVER       | MKE     |
|          | VFK27      | HEAD CLEANING STICK          | MKE     |
|          | VFK0330    | H-POSITION ADJUSTMENT DRIVER | MKE     |

## 14.3. ELECTRICAL REPLACEMENT PARTS LIST

Definition of Parts supplier:

1. All parts are supplied from MKA.

## PRINTED CIRCUIT BOARD ASSEMBLY

| Ref. No. | Part No.  | Part Name & Description | Remarks       |
|----------|-----------|-------------------------|---------------|
| E10      | LSEP2083D | TV/VCR MAIN C.B.A.      | E.S.D.<br>RTL |
| E20      | LSEP2008A | HEAD AMP C.B.A.         | RTL           |
| E50      | LRP63022E | CRT C.B.A.              | RTL           |

### 14.3.1. TV/VCR MAIN C.B.A.

## INTEGRATED CIRCUITS

| Ref. No. | Part No.      | Part Name & Description  | Remarks |
|----------|---------------|--------------------------|---------|
| IC451    | CI4A00000024  | IC, LINEAR               |         |
| IC501    | CNC1S101R1KT  | IC, LINEAR               | △       |
| IC501    | CNC1S101R1KT  | IC, LINEAR               | △       |
| IC501    | CNC1S101S1KT  | IC, LINEAR               | △       |
| IC502    | CNC1S101R2KT  | IC, LINEAR               | △       |
| IC801    | C5HABZZ00051  | IC, LINEAR               | △       |
| IC1001   | CNC1S101R1KT  | IC, LINEAR               | △       |
| IC1001   | CNC1S101S1KT  | IC, LINEAR               | △       |
| IC1002   | C0DAEMZ00005  | IC, LINEAR               |         |
| IC1002   | BIAZKD000001  | IC, LINEAR               |         |
| IC1002   | C0DAEMZ00001  | IC, LINEAR               |         |
| IC3001   | AN3479FBP-A   | IC, LINEAR               |         |
| IC3201   | MN3885S       | IC, CCD 1H DELAY         | E.S.D.  |
| IC4501   | CI4A000000652 | IC, LINEAR               |         |
| IC5301   | AN15167A-VT   | IC, LINEAR               |         |
| IC6001   | MN101D06FCC   | IC, 8BIT MICROCONTROLLER | E.S.D.  |
| IC6002   | B3NAA0000049  | PHOTO INTERRUPTER        |         |
| IC6003   | B3NAA0000049  | PHOTO INTERRUPTER        |         |
| IC6004   | LSSK0026      | IC, 1K EEPROM            | E.S.D.  |
| IC6005   | C0EBJ0000080  | IC, CMOS STANDARD LOGIC  | E.S.D.  |
| IC6005   | C0EBJ0000099  | IC, CMOS STANDARD LOGIC  | E.S.D.  |
| IC6005   | RN5V847CA-TR  | IC, CMOS STANDARD LOGIC  | E.S.D.  |

## TRANSISTORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| Q431     | 2SA733-TQ    | TRANSISTOR SI PNP       |         |
| Q431     | 2SA1175      | TRANSISTOR SI PNP       |         |
| Q431     | 2SA1175-TH   | TRANSISTOR SI PNP       |         |
| Q501     | B1AACN000013 | TRANSISTOR SI NPN       |         |
| Q531     | 2SA733-TQ    | TRANSISTOR SI PNP       |         |
| Q531     | 2SA1175      | TRANSISTOR SI PNP       |         |
| Q531     | 2SA1175-TH   | TRANSISTOR SI PNP       |         |
| Q532     | 2SC945A-TQ   | TRANSISTOR SI NPN       |         |
| Q532     | 2SC2785-TH   | TRANSISTOR SI NPN       |         |
| Q532     | 2SC2785-TJ   | TRANSISTOR SI NPN       |         |
| Q551     | B1BAFT000004 | TRANSISTOR SI NPN CHIP  | △       |
| Q571     | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q571     | BLABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q581     | BLACBM000001 | TRANSISTOR SI NPN       |         |
| Q581     | 2SA17670QA   | TRANSISTOR SI PNP CHIP  |         |
| Q581     | 2SB12210QA   | TRANSISTOR SI PNP CHIP  |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| Q801     | 2SC945A-TKA  | TRANSISTOR SI NPN       |         |
| Q801     | 2SC1684-Q    | TRANSISTOR SI NPN       |         |
| Q801     | 2SC1684-S    | TRANSISTOR SI NPN       |         |
| Q801     | 2SC16840RA   | TRANSISTOR SI NPN       |         |
| Q801     | 2SC2785-TE   | TRANSISTOR SI NPN       |         |
| Q801     | 2SC2785-TF   | TRANSISTOR SI NPN       |         |
| Q801     | 2SC2785-TH   | TRANSISTOR SI NPN       |         |
| Q801     | 2SC2785-TJ   | TRANSISTOR SI NPN       |         |
| Q801     | 2SC2785-TK   | TRANSISTOR SI NPN       |         |
| Q801     | 2SC3311AQA   | TRANSISTOR SI NPN       |         |
| Q801     | 2SC3311ARA   | TRANSISTOR SI NPN       |         |
| Q801     | 2SC3311ASA   | TRANSISTOR SI NPN       |         |
| Q801     | 2SC945A-TPA  | TRANSISTOR SI NPN       |         |
| Q801     | 2SC945A-TQA  | TRANSISTOR SI NPN       |         |
| Q1001    | 2SC4533003KT | TRANSISTOR SI NPN       | △       |
| Q1001    | 2SC4533003KT | TRANSISTOR SI NPN       | △       |
| Q1002    | 2SD225900A   | TRANSISTOR SI NPN       |         |
| Q1051    | B1BACC000010 | TRANSISTOR SI NPN       |         |
| Q1051    | 2SD1581-T    | TRANSISTOR SI NPN       |         |
| Q1052    | 2SD0601AHL   | TRANSISTOR SI NPN CHIP  |         |
| Q1052    | BLABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q1053    | 2SD235800A   | TRANSISTOR SI NPN CHIP  |         |
| Q1053    | B1AAQB000002 | TRANSISTOR SI NPN CHIP  |         |
| Q3001    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q3001    | BLADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q3002    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q3002    | BLABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q3301    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q3301    | BLABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q4001    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q4001    | BLADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q4002    | 2SD1819AHL   | TRANSISTOR SI NPN CHIP  |         |
| Q4003    | 2SD1819AHL   | TRANSISTOR SI NPN CHIP  |         |
| Q4101    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q4171    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q4171    | BLABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q5301    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q5301    | BLABCF000020 | TRANSISTOR SI NPN CHIP  |         |
| Q5901    | 2SD225900A   | TRANSISTOR SI NPN       |         |
| Q6001    | 2SB0709A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q6001    | BLADCF000001 | TRANSISTOR SI PNP CHIP  |         |
| Q6002    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q6002    | BLABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q6003    | 2SD0601A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q6003    | BLABCF000011 | TRANSISTOR SI NPN CHIP  |         |
| Q6004    | 2SB1218A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q6004    | BLADCF000063 | TRANSISTOR SI PNP CHIP  |         |
| Q6005    | 2SB0709A0L   | TRANSISTOR SI PNP CHIP  |         |
| Q6005    | BLADCF000001 | TRANSISTOR SI PNP CHIP  |         |
| Q6006    | 2SD1819A0L   | TRANSISTOR SI NPN CHIP  |         |
| Q6009    | VEKS5707     | PHOTO SENSOR UNIT       |         |
| Q6010    | VEKS5707     | PHOTO SENSOR UNIT       |         |

## DIODES

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D401     | B0EAKL000049 | DIODE SI                |         |
| D401     | B0EAKL000044 | DIODE SI                |         |
| D401     | B0EAKL000045 | DIODE SI                |         |
| D502     | MA2C165001VT | DIODE SI                |         |
| D502     | B0AACK000004 | DIODE SI                |         |
| D502     | 1SS119       | DIODE SI                |         |
| D503     | B0HAGP000011 | DIODE SI                |         |
| D503     | B0HAJP000012 | DIODE SI                |         |
| D504     | MAZ40470MF   | DIODE ZENER 4.7V        |         |
| D504     | MAZ40470HF   | DIODE ZENER 4.7V        |         |
| D504     | RD4.7ESAB    | DIODE ZENER 4.7V        |         |
| D504     | RD4.7ESAB2   | DIODE ZENER 4.7V        |         |
| D504     | 04AZ4.7ZTPA7 | DIODE ZENER 4.7V        |         |
| D507     | MA2C165001VT | DIODE SI                |         |
| D507     | B0AACK000004 | DIODE SI                |         |
| D507     | 1SS119       | DIODE SI                |         |
| D553     | B0HAGP000011 | DIODE SI                |         |
| D553     | B0HAJP000012 | DIODE SI                |         |



| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D554     | B0AAEL000001 | DIODE SI                |         |
| D554     | MA2C16700E   | DIODE SI                |         |
| D558     | B0HAGP000011 | DIODE SI                |         |
| D558     | B0HAJP000012 | DIODE SI                |         |
| D560     | ERB44-04V    | DIODE SI                |         |
| D571     | MAZ40470MP   | DIODE ZENER 4.7V        |         |
| D571     | B0BA4R600003 | DIODE ZENER 4.7V        |         |
| D571     | RD4.7ESAB2   | DIODE ZENER 4.7V        |         |
| D572     | MAZ4110NHF   | DIODE ZENER 11V         |         |
| D573     | MA2C165001VT | DIODE SI                |         |
| D573     | B0AACK000004 | DIODE SI                |         |
| D573     | 1SS119       | DIODE SI                |         |
| D574     | MA2C165001VT | DIODE SI                |         |
| D574     | B0AACK000004 | DIODE SI                |         |
| D574     | 1SS119       | DIODE SI                |         |
| D582     | B0HAPV000005 | DIODE SI                |         |
| D591     | LSRPAF4HM3R0 | THERMISTOR              | △       |
| D591     | D4DDF5R00005 | THERMISTOR              | △       |
| D801     | B0AAKT000010 | DIODE SI                | △       |
| D801     | B0EAKT000027 | DIODE SI                | △       |
| D801     | B0EAKT000030 | DIODE SI                | △       |
| D802     | B0AAKT000010 | DIODE SI                | △       |
| D802     | B0EAKT000027 | DIODE SI                | △       |
| D802     | B0EAKT000030 | DIODE SI                | △       |
| D803     | B0AAKT000010 | DIODE SI                | △       |
| D803     | B0EAKT000027 | DIODE SI                | △       |
| D803     | B0EAKT000030 | DIODE SI                | △       |
| D804     | B0AAKT000010 | DIODE SI                | △       |
| D804     | B0EAKT000027 | DIODE SI                | △       |
| D804     | B0EAKT000030 | DIODE SI                | △       |
| D805     | MA2C16700E   | DIODE SI                |         |
| D805     | B0AAEL000001 | DIODE SI                |         |
| D881     | ERZV10V361CS | SURGE ABSORBER          | △       |
| D881     | D4EAA3610001 | SURGE ABSORBER          | △       |
| D882     | ERZV10V361CS | SURGE ABSORBER          | △       |
| D882     | D4EAA3610001 | SURGE ABSORBER          | △       |
| D1001    | DB105G       | DIODE SI                | △       |
| D1001    | B0EBKR000003 | DIODE SI                | △       |
| D1001    | B0EBKR000020 | DIODE SI                | △       |
| D1001    | B0EBKR000024 | DIODE SI                | △       |
| D1002    | B0HAHP000014 | DIODE SI                |         |
| D1002    | B0HAJP000007 | DIODE SI                |         |
| D1002    | B0HAMP000061 | DIODE SI                |         |
| D1002    | B0HAMP000069 | DIODE SI                |         |
| D1003    | B0HAHP000014 | DIODE SI                |         |
| D1003    | B0HAJP000007 | DIODE SI                |         |
| D1003    | B0HAMP000061 | DIODE SI                |         |
| D1003    | B0HAMP000069 | DIODE SI                |         |
| D1005    | B0HAHP000014 | DIODE SI                |         |
| D1005    | B0HAJP000007 | DIODE SI                |         |
| D1005    | B0HAMP000061 | DIODE SI                |         |
| D1005    | B0HAMP000069 | DIODE SI                |         |
| D1006    | B0HAML000015 | DIODE SI                |         |
| D1006    | B0HANL000012 | DIODE SI                |         |
| D1008    | B0JAME000079 | DIODE SI                |         |
| D1008    | B0JAME000049 | DIODE SI                |         |
| D1008    | B0JANE000011 | DIODE SI                |         |
| D1008    | B0JANE000022 | DIODE SI                |         |
| D1015    | MA2180LA     | DIODE ZENER 18V         | △       |
| D1015    | B0BA01800025 | DIODE ZENER 18V         | △       |
| D1015    | 1N4746A-T    | DIODE ZENER 18V         | △       |
| D1015    | 1N4746ARL    | DIODE ZENER 18V         | △       |
| D1016    | MA2C165001VT | DIODE SI                |         |
| D1016    | B0AACK000004 | DIODE SI                |         |
| D1016    | 1SS119       | DIODE SI                |         |
| D1051    | MAZ4110NHF   | DIODE ZENER 11V         |         |
| D4171    | MA2C165001VT | DIODE SI                |         |
| D4171    | B0AACK000004 | DIODE SI                |         |
| D4171    | 1SS119       | DIODE SI                |         |
| D4526    | MAZ40560MP   | DIODE ZENER 5.6V        |         |
| D4528    | MAZ40390HF   | DIODE ZENER 3.9V        |         |
| D4711    | MAZ41100LF   | DIODE ZENER 11V         |         |
| D4711    | MAZ4110NHF   | DIODE ZENER 11V         |         |

| Ref. No. | Part No.     | Part Name & Description     | Remarks |
|----------|--------------|-----------------------------|---------|
| D5501    | MAZ40620L1KT | DIODE ZENER 6.2V            | △       |
| D5602    | MA2C165001VT | DIODE SI                    |         |
| D5602    | B0AACK000004 | DIODE SI                    |         |
| D5602    | 1SS119       | DIODE SI                    |         |
| D5603    | MA2C165001VT | DIODE SI                    |         |
| D5603    | B0AACK000004 | DIODE SI                    |         |
| D5603    | 1SS119       | DIODE SI                    |         |
| D6001    | VEKS5708     | SENSOR LED UNIT             |         |
| D6003    | MA2C165001VT | DIODE SI                    |         |
| D6003    | B0AACK000004 | DIODE SI                    |         |
| D6003    | 1SS119       | DIODE SI                    |         |
| D6005    | MA2C165001VT | DIODE SI                    |         |
| D6005    | B0AACK000004 | DIODE SI                    |         |
| D6005    | 1SS119       | DIODE SI                    |         |
| D6301    | B3AAA0000538 | LIGHT EMITTING DIODE RED    |         |
| D6302    | B3ACA0000192 | LIGHT EMITTING DIODE ORANGE |         |
| D6303    | B3ABA0000400 | LIGHT EMITTING DIODE GREEN  |         |

## RESISTORS

| Ref. No. | Part No.     | Part Name & Description        | Remarks |
|----------|--------------|--------------------------------|---------|
| R401     | ERDS2TJ221   | CARBON 1/4W 220                |         |
| R402     | ERDS2TJ333T  | CARBON 1/4W 33K                |         |
| R405     | ERG2ANJ561H  | METAL OXIDE 2W 560             |         |
| R409     | ERJ6GEYJ273V | MGF CHIP 1/10W 27K             |         |
| R410     | ERDS2TJ472   | CARBON 1/4W 4.7K               |         |
| R411     | ERDS2TJ104   | CARBON 1/4W 100K               |         |
| R413     | ERJ6GEYJ103V | MGF CHIP 1/10W 10K             |         |
| R414     | ERX12SJR82P  | PRECISION METAL FILM 1/2W 0.82 | △       |
| R422     | ERD25FJ101P  | CARBON 1/4W 100                | △       |
| R427     | ERQ14AJ5R6P  | FUSE 1/4W 5.6                  | △       |
| R431     | ERDS2TJ103   | CARBON 1/4W 10K                |         |
| R432     | ERJ6GEYJ393V | MGF CHIP 1/10W 39K             |         |
| R433     | ERJ6GEYJ103V | MGF CHIP 1/10W 10K             |         |
| R434     | ERDS2TJ103   | CARBON 1/4W 10K                |         |
| R435     | ERDS2TJ102   | CARBON 1/4W 1K                 |         |
| R436     | ERJ6GEYJ104V | MGF CHIP 1/10W 100K            |         |
| R466     | ERJ6GEYJ683V | MGF CHIP 1/10W 68K             |         |
| R468     | ERDS2TJ102   | CARBON 1/4W 1K                 |         |
| R471     | ERDS1FJ152P  | CARBON 1/2W 1.5K               | △       |
| R472     | ERDS2TJ332   | CARBON 1/4W 3.3K               |         |
| R501     | ERJ6GEYJ471V | MGF CHIP 1/10W 470             |         |
| R502     | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K            |         |
| R503     | EROS2THF9101 | PRECISION METAL FILM 1/4W 9.1K | △       |
| R504     | ERJ6GEY0R00V | MGF CHIP 1/10W 0               |         |
| R505     | ERDS2TJ561   | CARBON 1/4W 560                |         |
| R509     | ERDS2TJ101   | CARBON 1/4W 100                |         |
| R511     | ERG3FJ272H   | METAL OXIDE 3W 2.7K            |         |
| R516     | LAR05202J09  | W FLMPRF 5W 2K                 |         |
| R517     | ERDS2TJ472   | CARBON 1/4W 4.7K               |         |
| R518     | ERDS1FJ1R0P  | CARBON 1/2W 1                  |         |
| R519     | ERDS2TJ123   | CARBON 1/4W 12K                |         |
| R520     | ERDS2TJ562   | CARBON 1/4W 5.6K               |         |
| R525     | ERDS2TJ122   | CARBON 1/4W 1.2K               |         |
| R529     | ERDS2TJ103   | CARBON 1/4W 10K                |         |
| R531     | ERDS2TJ223   | CARBON 1/4W 22K                |         |
| R533     | ERDS2TJ152   | CARBON 1/4W 1.5K               |         |
| R534     | ERDS2TJ681   | CARBON 1/4W 680                |         |
| R535     | ERDS2TJ471   | CARBON 1/4W 470                |         |
| R536     | ERG2ANJ153H  | METAL OXIDE 2W 15K             |         |
| R536     | ERG2ANJP153H | METAL OXIDE 2W 15K             |         |
| R537     | ERG2ANJ153H  | METAL OXIDE 2W 15K             |         |
| R537     | ERG2ANJP153H | METAL OXIDE 2W 15K             |         |
| R538     | ERDS2TJ473   | CARBON 1/4W 47K                |         |
| R539     | ERDS2TJ473   | CARBON 1/4W 47K                |         |
| R540     | ERDS2TJ562   | CARBON 1/4W 5.6K               |         |
| R541     | ERDS2TJ222   | CARBON 1/4W 2.2K               |         |
| R542     | ERDS2TJ473   | CARBON 1/4W 47K                |         |
| R543     | ERDS2TJ102   | CARBON 1/4W 1K                 |         |
| R544     | ERDS2TJ101   | CARBON 1/4W 100                |         |
| R545     | ERDS2TJ152   | CARBON 1/4W 1.5K               |         |
| R546     | ERDS2TJ223   | CARBON 1/4W 22K                |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R552     | ERDS2TJ472   | CARBON 1/4W 4.7K        |         |
| R553     | ERDS2TJ102   | CARBON 1/4W 1K          |         |
| R554     | ERDS2TJ103   | CARBON 1/4W 10K         |         |
| R555     | ERDS2TJ823   | CARBON 1/4W 82K         |         |
| R556     | ERDS2TJ473   | CARBON 1/4W 47K         |         |
| R558     | ERG2ANJ102H  | METAL OXIDE 2W 1K       |         |
| R559     | ERDS2TJ822   | CARBON 1/4W 8.2K        |         |
| R561     | ERQ2CKPR82S  | FUSE 2W 0.82            | △       |
| R562     | ERF5ZK2R2    | W FLMPRF 5W 2.2         |         |
| R571     | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R572     | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R573     | ERDS2TJ221   | CARBON 1/4W 220         |         |
| R574     | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R581     | ERDS1FJ1R5P  | CARBON 1/2W 1.5         | △       |
| R582     | ERDS1FJ1R2P  | CARBON 1/2W 1.2         | △       |
| R583     | ERDS1FJ1R5P  | CARBON 1/2W 1.5         | △       |
| R584     | ERDS2TJ562   | CARBON 1/4W 5.6K        |         |
| R585     | ERDS2TJ473   | CARBON 1/4W 47K         |         |
| R586     | ERDS2TJ393   | CARBON 1/4W 39K         |         |
| R593     | ERF5ZJ121    | W FLMPRF 5W 120         |         |
| R801     | ERF5ZKR82    | W FLMPRF 5W 0.82        | △       |
| R802     | ERDS1FJ103P  | CARBON 1/2W 10K         | △       |
| R803     | ERF10ZK8R2S  | W FLMPRF 10W 8.2        |         |
| R804     | ERF20ZJ131   | W FLMPRF 20W 130        |         |
| R805     | ERDS2TJ104   | CARBON 1/4W 100K        |         |
| R806     | ERQ14AJ470P  | FUSE 1/4W 47            | △       |
| R810     | ERDS2TJ103   | CARBON 1/4W 10K         |         |
| R813     | ERDS2TJ104   | CARBON 1/4W 100K        |         |
| R818     | VRESC2TK825T | SOLID 1/2W 8.2M         | △       |
| R865     | ERDS2TJ222   | CARBON 1/4W 2.2K        |         |
| R1003    | DOAF334JA038 | CARBON 1/2W 330K        |         |
| R1004    | ERG2S333H    | METAL OXIDE 2W 33K      |         |
| R1005    | ERGL6J560P   | METAL OXIDE 1W 56       |         |
| R1006    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R1007    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R1008    | ERDS2TJ392   | CARBON 1/4W 3.9K        |         |
| R1010    | ERD25FJ100P  | CARBON 1/4W 10          | △       |
| R1014    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R1015    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R1016    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R1017    | DLBD2431A016 | MGF CHIP 1/10W 2.43K    |         |
| R1018    | DOHD222ZA002 | MGF CHIP 1/10W 2.2K     |         |
| R1025    | ERDS2TJ300T  | CARBON 1/4W 30          |         |
| R1026    | ERDS2TJ300T  | CARBON 1/4W 30          |         |
| R1051    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R1052    | ERDS2TJ153   | CARBON 1/4W 15K         |         |
| R1053    | ERDS2TJ153   | CARBON 1/4W 15K         |         |
| R1057    | ERDS2TJ331   | CARBON 1/4W 330         |         |
| R1058    | ERJ6GEYJ104V | MGF CHIP 1/10W 100K     |         |
| R3001    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R3006    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R3016    | ERJ6GEYJ121V | MGF CHIP 1/10W 120      |         |
| R3017    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R3024    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R3025    | ERJ6GEYJ125V | MGF CHIP 1/10W 1.2M     |         |
| R3026    | ERJ6GEYJ474V | MGF CHIP 1/10W 470K     |         |
| R3028    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R3029    | ERJ6GEYJ151V | MGF CHIP 1/10W 150      |         |
| R3032    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R3035    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R3036    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R3037    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R3038    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R3044    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R3045    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R3047    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R3077    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R3084    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R3086    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R3091    | ERJ6GEYJ750V | MGF CHIP 1/10W 75       |         |
| R3301    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R3302    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R3303    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R4001    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R4002    | ERJ6GEYJ334V | MGF CHIP 1/10W 330K     |         |
| R4003    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R4004    | ERJ6GEYJ333V | MGF CHIP 1/10W 33K      |         |
| R4005    | ERJ6GEYJ225V | MGF CHIP 1/10W 2.2M     |         |
| R4006    | ERJ6GEYJ681V | MGF CHIP 1/10W 680      |         |
| R4007    | ERJ6GEYJ821V | MGF CHIP 1/10W 820      |         |
| R4008    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R4009    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R4010    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R4011    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K     |         |
| R4012    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K     |         |
| R4014    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R4015    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R4018    | ERJ6GEYJ123V | MGF CHIP 1/10W 12K      |         |
| R4021    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R4101    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R4102    | ERJ6GEYJ154V | MGF CHIP 1/10W 150K     |         |
| R4103    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R4172    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R4175    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R4502    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R4504    | ERJ6GEYJ823V | MGF CHIP 1/10W 82K      |         |
| R4509    | ERDS2TJ100   | CARBON 1/4W 10          |         |
| R4521    | ERQ1ABJP4R7S | FUSE 1W 4.7             | △       |
| R4523    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |
| R4591    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4592    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4593    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4594    | ERDS2TJ681   | CARBON 1/4W 680         |         |
| R4701    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R5301    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R5304    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R5305    | ERJ6GEYJ224V | MGF CHIP 1/10W 220K     |         |
| R5306    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R5307    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |
| R5308    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R5309    | ERJ6GEYJ274V | MGF CHIP 1/10W 270K     |         |
| R5311    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R5312    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R5313    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |
| R5314    | ERDS2TJ272   | CARBON 1/4W 2.7K        |         |
| R5315    | ERDS2TJ272   | CARBON 1/4W 2.7K        |         |
| R5316    | ERDS2TJ272   | CARBON 1/4W 2.7K        |         |
| R5317    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R5324    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5401    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R5402    | ERJ6GEYJ394V | MGF CHIP 1/10W 390K     |         |
| R5403    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R5405    | ERJ6GEYJ822V | MGF CHIP 1/10W 8.2K     |         |
| R5406    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5501    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R5502    | ERJ6GEYJ394V | MGF CHIP 1/10W 390K     |         |
| R5503    | ERDS2TJ471   | CARBON 1/4W 470         |         |
| R5504    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5505    | ERJ6ENF3241V | MGF CHIP 1/10W 3.24K    | △       |
| R5506    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R5508    | ERJ6GEYJ561V | MGF CHIP 1/10W 560      |         |
| R5510    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5511    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R5512    | ERDS2TJ151   | CARBON 1/4W 150         |         |
| R5513    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5601    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R5604    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R5611    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R5612    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R5614    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R5902    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R5932    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R5933    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6001    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6002    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6003    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R6004    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6005    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6007    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6008    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6014    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6015    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6016    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6017    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6018    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6019    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R6021    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6022    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R6023    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6024    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6025    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |
| R6026    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6028    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R6029    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6030    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6032    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R6035    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6040    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6041    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6042    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6044    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6045    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6046    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6049    | ERJ6GEY0R00V | MGF CHIP 1/10W 0        |         |
| R6050    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6053    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R6054    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6055    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6057    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6058    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6059    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R6060    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6061    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6062    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6063    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6064    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6066    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6067    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6077    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6078    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6080    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R6081    | ERJ6GEYJ122V | MGF CHIP 1/10W 1.2K     |         |
| R6082    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6090    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R6091    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R6092    | ERJ6GEYJ471V | MGF CHIP 1/10W 470      |         |
| R6098    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R6113    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R6114    | ERJ6GEYJ272V | MGF CHIP 1/10W 2.7K     |         |
| R6115    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6116    | ERDS2TJ101   | CARBON 1/4W 100         |         |
| R6118    | ERJ6GEYJ104V | MGF CHIP 1/10W 100K     |         |
| R6119    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R6120    | ERJ6GEYJ104V | MGF CHIP 1/10W 100K     |         |
| R6121    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R6122    | ERJ6GEYJ181V | MGF CHIP 1/10W 180      |         |
| R6123    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R6124    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6126    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6127    | ERJ6GEYJ221V | MGF CHIP 1/10W 220      |         |
| R6130    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R6131    | ERJ6GEYJ183V | MGF CHIP 1/10W 18K      |         |
| R6132    | ERJ6GEYJ391V | MGF CHIP 1/10W 390      |         |
| R6133    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6134    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6135    | ERJ6GEYJ475V | MGF CHIP 1/10W 4.7M     |         |
| R6136    | ERJ6GEYJ332V | MGF CHIP 1/10W 3.3K     |         |
| R6137    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6138    | ERDS2TJ560T  | CARBON 1/4W 56          |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R6142    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6143    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R6144    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R6145    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R6149    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R6150    | ERJ6GEYJ273V | MGF CHIP 1/10W 27K      |         |
| R6160    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6161    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6162    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6163    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R6164    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R6165    | ERJ6GEYJ472V | MGF CHIP 1/10W 4.7K     |         |
| R6166    | ERJ6GEYJ223V | MGF CHIP 1/10W 22K      |         |
| R6170    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R6201    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6202    | ERJ6GEYJ473V | MGF CHIP 1/10W 47K      |         |
| R6203    | ERJ6GEYJ274V | MGF CHIP 1/10W 270K     |         |
| R6204    | ERJ6GEYJ184V | MGF CHIP 1/10W 180K     |         |
| R6205    | ERJ6GEYJ103V | MGF CHIP 1/10W 10K      |         |
| R6207    | ERJ6GEYJ101V | MGF CHIP 1/10W 100      |         |
| R6208    | ERJ6GEYJ152V | MGF CHIP 1/10W 1.5K     |         |
| R6209    | ERJ6GEYJ222V | MGF CHIP 1/10W 2.2K     |         |
| R6210    | ERJ6GEYJ563V | MGF CHIP 1/10W 56K      |         |
| R6211    | ERJ6GEYJ153V | MGF CHIP 1/10W 15K      |         |
| R6212    | ERJ6GEYJ682V | MGF CHIP 1/10W 6.8K     |         |
| R6301    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6302    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R6303    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6304    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R6305    | ERJ6GEYJ182V | MGF CHIP 1/10W 1.8K     |         |
| R6306    | ERJ6GEYJ392V | MGF CHIP 1/10W 3.9K     |         |
| R6307    | ERJ6GEYJ562V | MGF CHIP 1/10W 5.6K     |         |
| R7001    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7002    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7003    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7004    | ERJ6GEYJ102V | MGF CHIP 1/10W 1K       |         |
| R7006    | ERJ6GEYJ271V | MGF CHIP 1/10W 270      |         |
| R7007    | ERDS2TJ102   | CARBON 1/4W 1K          |         |

## CAPACITORS

| Ref. No. | Part No.     | Part Name & Description  | Remarks |
|----------|--------------|--------------------------|---------|
| C401     | ECA1HM2R2B   | ELECTROLYTIC 50V 2.2UF   |         |
| C402     | ECA1CM471B   | ELECTROLYTIC 16V 470UF   |         |
| C408     | ECA1HGE010KB | ELECTROLYTIC 50V 1UF     |         |
| C409     | ECA1VM221B   | ELECTROLYTIC 35V 220UF   |         |
| C413     | ECQB1H104KF  | POLYESTER 50V 0.1UF      |         |
| C414     | ECA1EM102B   | ELECTROLYTIC 25V 1000UF  |         |
| C418     | ECA1VM221B   | ELECTROLYTIC 35V 220UF   |         |
| C459     | ECQB1H103KF3 | POLYESTER 50V 0.01UF     |         |
| C510     | ECKR2H681KB5 | CERAMIC 500V 680PF       |         |
| C513     | ECA1EM101B   | ELECTROLYTIC 25V 100UF   |         |
| C524     | ECKC3D221KB5 | CERAMIC 2KV 220PF        | △       |
| C531     | ECA1HM3R3B   | ELECTROLYTIC 50V 3.3UF   |         |
| C533     | ECA1EM101B   | ELECTROLYTIC 25V 100UF   |         |
| C534     | ECEA1HKA2R2  | ELECTROLYTIC 50V 2.2UF   |         |
| C552     | ECA1EM471B   | ELECTROLYTIC 25V 470     |         |
| C553     | ECKR2H471KB5 | CERAMIC 500V 470PF       |         |
| C554     | L8CFN12123JB | POLYESTER 1.2KV 0.012UF  | △       |
| C556     | ECWF2474JBB  | POLYESTER 250V 0.47UF    | △       |
| C558     | ECA1VM331B   | ELECTROLYTIC 35V 330UF   |         |
| C560     | ECA2EM100B   | ELECTROLYTIC 250V 10UF   | △       |
| C561     | ECA1HM2R2B   | ELECTROLYTIC 50V 2.2UF   |         |
| C563     | ECEA180V33WE | ELECTROLYTIC 180V 33UF   |         |
| C571     | ECA1HM3R3B   | ELECTROLYTIC 50V 3.3UF   |         |
| C572     | ECA1CM221B   | ELECTROLYTIC 16V 220UF   |         |
| C573     | ECKR2H122KB5 | CERAMIC 50V 1200PF       |         |
| C581     | ECWH12H222JS | POLYESTER 1250V 0.0022UF |         |
| C801     | VCKSRNG472ZX | CERAMIC 250V 4700PF      |         |
| C802     | VCKSRNG472ZX | CERAMIC 250V 4700PF      |         |
| C803     | VCKSRNG472ZX | CERAMIC 250V 4700PF      |         |
| C804     | VCKSRNG472ZX | CERAMIC 250V 4700PF      |         |
| C805     | ECOS2DP681BB | ELECTROLYTIC 220V 680UF  | △       |
| C806     | ECA2EM330E   | ELECTROLYTIC 250V 33UF   |         |

| Ref. No. | Part No.      | Part Name & Description  | Remarks |
|----------|---------------|--------------------------|---------|
| C807     | J0LE00000023  | ARRESTER                 | △       |
| C808     | ECQU2A823MLA  | POLYESTER 250V 0.082UF   | △       |
| C809     | FLB2E101A009  | CERAMIC 250V 100PF       | △       |
| C811     | FLB2E152A012  | CERAMIC 250V 1500PF      | △       |
| C1001    | ECKATS103MF   | CERAMIC 250V 0.01UF      | △       |
| C1001    | ECKETS103MF   | CERAMIC 125V 0.01UF      | △       |
| C1001    | VCKST3G103MY  | CERAMIC 250V 0.01UF      | △       |
| C1001    | VCKSU3D103MY  | CERAMIC 125V 0.01UF      | △       |
| C1002    | ECKATS332ME8  | CERAMIC 250V 3300PF      | △       |
| C1002    | ECKDNB332ME8  | CERAMIC 125V 3300PF      | △       |
| C1002    | ECKETS332ME8  | CERAMIC 125V 3300PF      | △       |
| C1002    | VCKST3G332MX  | CERAMIC 250V 3300PF      | △       |
| C1002    | VCKSU3D332MX  | CERAMIC 125V 3300PF      | △       |
| C1003    | FLB2E102A012  | CERAMIC 250V 1000PF      | △       |
| C1003    | FLB2E102A011  | CERAMIC 250V 1000PF      | △       |
| C1003    | FLB2E102A044  | CERAMIC 250V 1000PF      | △       |
| C1003    | FLB2E102A045  | CERAMIC 250V 1000PF      | △       |
| C1003    | FLB2E1020005  | CERAMIC 250V 1000PF      | △       |
| C1003    | FLB2E1020006  | CERAMIC 250V 1000PF      | △       |
| C1004    | ECEA2DU121YE  | ELECTROLYTIC 200V 120UF  | △       |
| C1004    | F2A2D1210001  | ELECTROLYTIC 200V 120UF  | △       |
| C1004    | F2A2D1210003  | ELECTROLYTIC 200V 120UF  | △       |
| C1004    | VCESTR2D121XE | ELECTROLYTIC 200V 120UF  | △       |
| C1005    | ECA2DHG4R7B   | ELECTROLYTIC 200V 4.7UF  |         |
| C1006    | ECKR2H221KB5  | CERAMIC 500V 220PF       |         |
| C1007    | ECJ2VB1C224K  | C CHIP 16V 0.22UF        |         |
| C1009    | VCYSBRE183KX  | CERAMIC 25V 0.018UF      |         |
| C1010    | ECJ2VB1H102K  | C CHIP 50V 1000PF        |         |
| C1011    | ECA1HHG470B   | ELECTROLYTIC 50V 47UF    |         |
| C1012    | ECEALPPE331   | ELECTROLYTIC 18V 330UF   |         |
| C1013    | ECALEM331B    | ELECTROLYTIC 25V 330UF   |         |
| C1016    | ECEALPPE331   | ELECTROLYTIC 18V 330UF   |         |
| C1017    | ECA0JM102B    | ELECTROLYTIC 6.3V 1000UF |         |
| C1018    | ECJ2VB1E104K  | C CHIP 25V 0.1UF         |         |
| C1025    | FLB2E101A009  | CERAMIC 250V 100PF       | △       |
| C1025    | FLB2E101A008  | CERAMIC 250V 100PF       | △       |
| C1025    | FLB2E101A032  | CERAMIC 250V 100PF       | △       |
| C1025    | FLB2E101A037  | CERAMIC 250V 100PF       | △       |
| C1029    | ECJ2VC1H101J  | C CHIP 50V 100PF         |         |
| C1030    | VCYSBRE183KX  | CERAMIC 25V 0.018UF      |         |
| C1051    | ECEALHKAR47   | ELECTROLYTIC 50V 0.47UF  |         |
| C1052    | ECEALCKA100   | ELECTROLYTIC 16V 10UF    |         |
| C1058    | ECEA0JEE101   | ELECTROLYTIC 6.3V 100UF  |         |
| C1059    | ECEALCKA470   | ELECTROLYTIC 16V 47UF    |         |
| C1060    | ECEALCKA470   | ELECTROLYTIC 16V 47UF    |         |
| C3003    | ECJ2VF1E104Z  | C CHIP 25V 0.1UF         |         |
| C3004    | ECJ2VF1H103Z  | C CHIP 50V 0.01UF        |         |
| C3006    | ECJ2VF1E104Z  | C CHIP 25V 0.1UF         |         |
| C3007    | ECEA0JKA101   | ELECTROLYTIC 6.3V 100UF  |         |
| C3008    | ECJ2VC1H181J  | C CHIP 50V 180PF         |         |
| C3009    | ECEALEKA4R7   | ELECTROLYTIC 25V 4.7UF   |         |
| C3010    | ECJ2VF1H103Z  | C CHIP 50V 0.01UF        |         |
| C3013    | ECJ2VF1C224Z  | C CHIP 16V 0.22UF        |         |
| C3015    | ECEA0JKA470   | ELECTROLYTIC 6.3V 47UF   |         |
| C3016    | ECEALCKA100   | ELECTROLYTIC 16V 10UF    |         |
| C3019    | ECEALHKA2R2   | ELECTROLYTIC 50V 2.2UF   |         |
| C3020    | ECEALCKA220   | ELECTROLYTIC 16V 22UF    |         |
| C3021    | ECEALHKA2R2   | ELECTROLYTIC 50V 2.2UF   |         |
| C3022    | ECJ2VF1C224Z  | C CHIP 16V 0.22UF        |         |
| C3023    | ECJ2VC1H680J  | C CHIP 50V 68PF          |         |
| C3024    | ECJ2VF1E104Z  | C CHIP 25V 0.1UF         |         |
| C3025    | ECJ2VB1E104K  | C CHIP 25V 0.1UF         |         |
| C3026    | ECJ2VB1H822K  | C CHIP 50V 8200PF        |         |
| C3027    | ECJ2VF1H103Z  | C CHIP 50V 0.01UF        |         |
| C3030    | ECJ2VF1H103Z  | C CHIP 50V 0.01UF        |         |
| C3031    | ECJ2VF1E104Z  | C CHIP 25V 0.1UF         |         |
| C3032    | ECJ2VF1C474Z  | C CHIP 16V 0.47UF        |         |
| C3034    | ECJ2VC1H181J  | C CHIP 50V 180PF         |         |
| C3035    | ECJ2VC1H330J  | C CHIP 50V 33PF          |         |
| C3036    | ECJ2VF1E104Z  | C CHIP 25V 0.1UF         |         |
| C3038    | ECEALCKA100   | ELECTROLYTIC 16V 10UF    |         |
| C3041    | ECJ2VF1H103Z  | C CHIP 50V 0.01UF        |         |
| C3043    | ECJ2VB1H392K  | C CHIP 50V 3900PF        |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C3044    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3045    | ECEALHKAR47  | ELECTROLYTIC 50V 0.47UF |         |
| C3046    | ECEALHKA2R2  | ELECTROLYTIC 50V 2.2UF  |         |
| C3047    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF |         |
| C3048    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3050    | ECEALHKA2R2  | ELECTROLYTIC 50V 2.2UF  |         |
| C3053    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3055    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3056    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3057    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3058    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3082    | ECJ2VB1H332K | C CHIP 50V 3300PF       |         |
| C3231    | ECEALHKA010  | ELECTROLYTIC 50V 1UF    |         |
| C3232    | ECJ2VB1H102K | C CHIP 50V 1000PF       |         |
| C3234    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF  |         |
| C3235    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3236    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3237    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C4001    | ECJ2VF1C224Z | C CHIP 16V 0.22UF       |         |
| C4002    | ECEALHKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4003    | ECJ2VB1H272K | C CHIP 50V 2700PF       |         |
| C4004    | ECJ2VB1H103K | C CHIP 50V 0.01UF       |         |
| C4005    | ECEA0JKA220  | ELECTROLYTIC 6.3V 22UF  |         |
| C4006    | ECJ2VB1H102K | C CHIP 50V 1000PF       |         |
| C4007    | ECEA0JKA220  | ELECTROLYTIC 6.3V 22UF  |         |
| C4008    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF  |         |
| C4009    | ECEALCKA100  | ELECTROLYTIC 16V 10UF   |         |
| C4010    | ECJ2VB1E333K | C CHIP 25V 0.033UF      |         |
| C4011    | ECJ2VB1H103K | C CHIP 50V 0.01UF       |         |
| C4012    | ECEALHKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4013    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF  |         |
| C4014    | ECEALHKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4018    | ECJ2VB1H103K | C CHIP 50V 0.01UF       |         |
| C4020    | ECEALHKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4102    | ECQB1562JF3  | POLYESTER 100V 5600PF   |         |
| C4103    | ECJ2VB1H103K | C CHIP 50V 0.01UF       |         |
| C4104    | ECJ2VB1H103K | C CHIP 50V 0.01UF       |         |
| C4105    | ECEALCKA220  | ELECTROLYTIC 16V 22UF   |         |
| C4171    | ECEALHKA010  | ELECTROLYTIC 50V 1UF    |         |
| C4502    | ECEALCKA100  | ELECTROLYTIC 16V 10UF   |         |
| C4504    | ECEALEKA4R7  | ELECTROLYTIC 25V 4.7UF  |         |
| C4506    | ECEALCKA470  | ELECTROLYTIC 16V 47UF   |         |
| C4508    | ECA1CM221B   | ELECTROLYTIC 16V 220UF  |         |
| C4509    | ECJ2VB1E473K | C CHIP 25V 0.047UF      |         |
| C4521    | ECALEM102B   | ELECTROLYTIC 25V 1000UF |         |
| C4524    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C5301    | ECEALCKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5302    | ECEALEKA4R7  | ELECTROLYTIC 25V 4.7UF  |         |
| C5303    | ECEALHKAR47  | ELECTROLYTIC 50V 0.47UF |         |
| C5305    | ECEALHKAR33  | ELECTROLYTIC 50V 0.33UF |         |
| C5306    | ECEALCKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5307    | ECEALCKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5308    | ECEALCKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5401    | VCUSTBC224KB | C CHIP 16V 0.22UF       |         |
| C5402    | ECJ2VB1H222K | C CHIP 50V 2200PF       |         |
| C5403    | ECEALHKA2R2  | ELECTROLYTIC 50V 2.2UF  |         |
| C5501    | ECJ2VB1E183K | C CHIP 25V 0.018UF      |         |
| C5502    | ECJ2VB1H681K | C CHIP 50V 680PF        |         |
| C5505    | ECEALCKA470  | ELECTROLYTIC 16V 47UF   |         |
| C5506    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C5507    | ECEALCKA100  | ELECTROLYTIC 16V 10UF   |         |
| C5508    | ECUV1H221J5N | C CHIP 50V 220PF        |         |
| C5510    | ECEALHKA010  | ELECTROLYTIC 50V 1UF    |         |
| C5511    | ECJ2VB1E333K | C CHIP 25V 0.033UF      |         |
| C5516    | ECJ2VB1E333K | C CHIP 25V 0.033UF      |         |
| C5601    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C5602    | ECJ2VB1E104K | C CHIP 25V 0.1UF        |         |
| C5603    | ECJ2VC1H150J | C CHIP 50V 15PF         |         |
| C5604    | ECEALHKA010  | ELECTROLYTIC 50V 1UF    |         |
| C5605    | ECJ2VB1E153K | C CHIP 25V 0.015UF      |         |
| C5902    | ECEALCKA470  | ELECTROLYTIC 16V 47UF   |         |
| C5903    | ECEALCKA470  | ELECTROLYTIC 16V 47UF   |         |
| C5904    | ECJ2VB1C104K | C CHIP 16V 0.1UF        |         |



| Ref. No. | Part No.     | Part Name & Description  | Remarks |
|----------|--------------|--------------------------|---------|
| C5905    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C5906    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C5907    | ECJ2VF1E104Z | C CHIP 25V 0.1UF         |         |
| C5932    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C6001    | ECEA0JKA331  | ELECTROLYTIC 6.3V 330UF  |         |
| C6002    | ECJ2VCIH080C | C CHIP 50V 8PF           |         |
| C6003    | ECJ2VCIH100C | C CHIP 50V 10PF          |         |
| C6004    | ECJ2VB1E104K | C CHIP 25V 0.1UF         |         |
| C6006    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6009    | ECEA1CKA100  | ELECTROLYTIC 16V 10UF    |         |
| C6013    | ECJ2VCIH101J | C CHIP 50V 100PF         |         |
| C6017    | ECJ2VCIH101J | C CHIP 50V 100PF         |         |
| C6018    | ECJ2VCIH101J | C CHIP 50V 100PF         |         |
| C6020    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6021    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6023    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6025    | ECEA0JKA470  | ELECTROLYTIC 6.3V 47UF   |         |
| C6029    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6040    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6041    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6044    | ECJ2VF1E104Z | C CHIP 25V 0.1UF         |         |
| C6201    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6202    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6203    | ECJ2VB1H332K | C CHIP 50V 3300PF        |         |
| C6204    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6207    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6208    | ECEA1CKS100  | ELECTROLYTIC 16V 10UF    |         |
| C6209    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C6212    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6213    | ECEA0JKS331I | ELECTROLYTIC 6.3V 330UF  |         |
| C6214    | ECEA0JKS220  | ELECTROLYTIC 6.3V 22UF   |         |
| C6215    | ECJ2VB1H272K | C CHIP 50V 2700PF        |         |
| C6216    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C6220    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF    |         |
| C6221    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6302    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6401    | ECJ2VF1H104Z | C CHIP 50V 0.1UF         |         |
| C6402    | ECEA0JKA101  | ELECTROLYTIC 6.3V 100UF  |         |
| C6403    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF     |         |
| C6404    | ECJ2VCIH121J | C CHIP 50V 120PF         |         |
| C6406    | ECEA1HKS010  | ELECTROLYTIC 50V 1UF     |         |
| C6408    | ECJ2VB1H222K | C CHIP 50V 2200PF        |         |
| C6410    | ECJ2VB1H103K | C CHIP 50V 0.01UF        |         |
| C7002    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C7006    | ECA0JMI02B   | ELECTROLYTIC 6.3V 1000UF |         |
| C7007    | ECJ2VB1H102K | C CHIP 50V 1000PF        |         |
| C7008    | ECJ2VF1H103Z | C CHIP 50V 0.01UF        |         |
| C7010    | ECEA1HKA010  | ELECTROLYTIC 50V 1UF     |         |

## COILS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| L501     | ELH5L6128    | COIL                    | △       |
| L553     | VLQSW07D220M | COIL 22UH               |         |
| L802     | VLQSAE8D220M | COIL 22UH               |         |
| L803     | ELF21V018A   | LINE NOISE FILTER       | △       |
| L803     | LLN63055A    | COIL                    | △       |
| L1001    | ELF15N005A   | LINE FILTER 0.5A 18MH   | △       |
| L1001    | ELF18D290A   | LINE FILTER 0.5A 18MH   | △       |
| L1001    | G0B183D00001 | LINE FILTER 0.5A 18MH   | △       |
| L1001    | J0HBLD000001 | LINE FILTER 0.5A 18MH   | △       |
| L1001    | J0HBLD000002 | LINE FILTER 0.5A 18MH   | △       |
| L1001    | VLQS0167     | LINE FILTER 0.5A 18MH   | △       |
| L1001    | VLQS0170     | LINE FILTER 0.6A 18MH   | △       |
| L1002    | VLQSAB7D220K | COIL 22UH               |         |
| L1003    | VLQSAB7D100K | COIL 10UH               |         |
| L1006    | J0JHB0000021 | FILTER                  |         |
| L1007    | G0C101KA0045 | COIL 100UH              |         |
| L3001    | G0C390KA0045 | COIL 39UH               |         |
| L3002    | ELESN101KA   | COIL 100UH              |         |
| L3005    | G0C330KA0045 | COIL 33UH               |         |
| L3010    | ELESN470KA   | COIL 47UH               |         |
| L3231    | ELESN221KA   | COIL 220UH              |         |
| L3301    | ELESN101KA   | COIL 100UH              |         |

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| L4001    | ELELN153KA   | COIL 15MH               |         |
| L4002    | ELESN101KA   | COIL 100UH              |         |
| L4004    | G0C220KA0045 | COIL 22UH               |         |
| L4101    | ELESN471KA   | COIL 470UH              |         |
| L5901    | ELESN101KA   | COIL 100UH              |         |
| L5902    | ELESN470KA   | COIL 47UH               |         |
| L6201    | ELEXT101KE04 | COIL 100UH              |         |
| L6401    | ELEXT101KE04 | COIL 100UH              |         |
| L6402    | J0JBC0000022 | CHIP BEAD INDUCTOR      |         |
| L6403    | J0JBC0000022 | CHIP BEAD INDUCTOR      |         |
| L6404    | J0JBC0000022 | CHIP BEAD INDUCTOR      |         |
| L6405    | J0JBC0000022 | CHIP BEAD INDUCTOR      |         |
| L7002    | ELESN100KA   | COIL 10UH               |         |

## CRYSTAL OSCILLATOR

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| X5501    | H2A503300012 | CRYSTAL OSCILLATOR      |         |
| X5601    | VSXS0190-TB  | CRYSTAL OSCILLATOR      |         |
| X6001    | VSXS0784     | CRYSTAL OSCILLATOR      |         |

## PIN HEADERS

| Ref. No. | Part No.     | Part Name & Description            | Remarks |
|----------|--------------|------------------------------------|---------|
| P552     | LSJWS4N360LL | PIN HEADER                         |         |
| P801     | VEKS5809     | CONNECTOR CABLE W/OUT PLUG, 200V   |         |
| P803     | LSJP0814     | CONNECTOR 2P                       |         |
| P3001    | K1KA08A00305 | CONNECTOR 8P                       |         |
| P4001    | VJSS0888     | FE CONNECTOR 2P                    |         |
| P4002    | LSJWR6N120CL | PARALLEL WIRE                      |         |
| P4591    | K1KA02A00229 | CONNECTOR 2P                       |         |
| P5301    | LSJWR4N490LL | CONNECTOR CABLE W/OUT PLUG, 12V DC |         |
| P6001    | K1KA05A00268 | CONNECTOR 5P                       |         |
| P6201    | K1KA12A00234 | PIN HEADER                         |         |

## SWITCHES

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| SW6001   | LSSH0002     | LEAF SWITCH-SAFETY TAB  |         |
| SW6002   | K0N107C00002 | PUSH SWITCH             |         |
| SW6301   | EVQ21405R    | PUSH SWITCH             |         |
| SW6302   | EVQ21405R    | PUSH SWITCH             |         |
| SW6303   | EVQ21405R    | PUSH SWITCH             |         |
| SW6304   | EVQ21405R    | PUSH SWITCH             |         |
| SW6305   | EVQ21405R    | PUSH SWITCH             |         |
| SW6306   | EVQ21405R    | PUSH SWITCH             |         |
| SW6307   | EVQ21405R    | PUSH SWITCH             |         |
| SW6308   | EVQ21405R    | PUSH SWITCH             |         |
| SW6309   | EVQ21405R    | PUSH SWITCH             |         |
| SW6310   | EVQ21405R    | PUSH SWITCH             |         |
| SW6311   | EVQ21405R    | PUSH SWITCH             |         |

## FUSE &amp; PROTECTOR

| Ref. No. | Part No.                      | Part Name & Description | Remarks |
|----------|-------------------------------|-------------------------|---------|
| F801     | K5D402AB0002                  | FUSE 125V 4A            | △       |
| F801     | K5D402ADA002                  | FUSE 125V 4A            | △       |
| F801     | K5D402ADA006                  | FUSE 125V 4A            | △       |
| F801     | K5D402AQ0002F USE & PROTECTOR | FUSE 125V 4A            | △       |
| F1001    | K5D162AQ0004                  | FUSE 125V 1.6A          | △       |
| F1001    | K5D162ADA001                  | FUSE 125V 1.6A          | △       |
| F1001    | K5D162ADA008                  | FUSE 125V 1.6A          | △       |
| PR1001   | UNH000600A                    | IC PROTECTOR 1.5A       | △       |
| PR1001   | B1ZAZ0000040                  | IC PROTECTOR 1.5A       | △       |
| PR1001   | LSSF009A25E                   | IC PROTECTOR 1.5A       | △       |
| PR1002   | UNH000600A                    | IC PROTECTOR 1.5A       | △       |
| PR1002   | B1ZAZ0000040                  | IC PROTECTOR 1.5A       | △       |
| PR1002   | LSSF009A25E                   | IC PROTECTOR 1.5A       | △       |

## RELAY

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| RL801    | LSSY0004     | RELAY                   | △       |
| RL801    | K6B1AGA00042 | RELAY, 120V             | △       |
| RL801    | TSEH0013     | RELAY                   | △       |
| RL801    | TSEH1860-1   | RELAY                   | △       |

## TRANSFORMER

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| T501     | ETH19Y70AY   | TRANSFORMER             |         |
| T551     | KFT4AB407F   | FLYBACK TRANSFORMER     | △       |
| T1001    | ETS28AD2J3AC | SW TRANSFORMER          | △       |
| T1001    | LSTP0105     | TRANSFORMER             | △       |
| T1001    | VTPS0042     | SW TRANSFORMER          | △       |
| T4101    | G2A342C00003 | TRANSFORMER             |         |

## JACKS

| Ref. No. | Part No.     | Part Name & Description       | Remarks |
|----------|--------------|-------------------------------|---------|
| JK4591   | K2HC103B0130 | FRONT AUDIO/VIDEO JACK SOCKET |         |
| JK4701   | K2HA104B0007 | EARPHONE JACK SOCKET          |         |

## MISCELLANEOUS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| 483      | XYN3+F10S    | SCREW W/WASHER, STEEL   |         |
| 484      | XTW3+10J     | TAPPING SCREW, STEEL    |         |
| 487      | XYN3+J8      | SCREW W/WASHER, STEEL   |         |
| 711      | PNA4611M00HC | INFRARED RECEIVER UNIT  |         |
| 719      | VMFS0136     | SHEET, NYLON-RAYON      |         |
| 728      | LUS63008A    | HEAT SINK               |         |
| 743      | ENG36709GL   | TUNER, UHF/VHF NR       |         |
| 746      | LUS63001A    | HEAT SINK               |         |
| 751      | LML69001A    | ANODE LEAD CLAMPER      |         |
| 760      | TUC77628     | HEAT SINK               |         |
| 771      | EYF52BC      | FUSE HOLDER             |         |

## 14.3.2. HEAD AMP C.B.A.

## INTEGRATED CIRCUITS

| Ref. No. | Part No. | Part Name & Description | Remarks |
|----------|----------|-------------------------|---------|
| IC3501   | AN3371SB | IC, LINEAR              |         |

## RESISTORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| R3507    | ERJ6GEYJ331V | MGF CHIP 1/10W 330      |         |

## CAPACITORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C3504    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |
| C3505    | ECEA1CKA470  | ELECTROLYTIC 16V 47UF   |         |
| C3506    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3508    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3511    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3512    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3513    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3528    | ECJ2VF1E104Z | C CHIP 25V 0.1UF        |         |
| C3529    | ECJ2VF1H103Z | C CHIP 50V 0.01UF       |         |

## COILS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| L3501    | G0C101KA0045 | COIL 100UH              |         |

## PIN HEADERS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| P3501    | K1KB08B00050 | CONNECTOR 8P            |         |

## 14.3.3. CRT C.B.A.

## TRANSISTORS

| Ref. No. | Part No.   | Part Name & Description | Remarks |
|----------|------------|-------------------------|---------|
| Q351     | 2SC3063    | TRANSISTOR SI NPN       |         |
| Q351     | 2SC3271F-N | TRANSISTOR SI NPN       |         |
| Q351     | 2SC3619    | TRANSISTOR SI NPN       |         |
| Q352     | 2SC3063    | TRANSISTOR SI NPN       |         |
| Q352     | 2SC3271F-N | TRANSISTOR SI NPN       |         |
| Q352     | 2SC3619    | TRANSISTOR SI NPN       |         |
| Q353     | 2SC3063    | TRANSISTOR SI NPN       |         |
| Q353     | 2SC3271F-N | TRANSISTOR SI NPN       |         |
| Q353     | 2SC3619    | TRANSISTOR SI NPN       |         |

## DIODES

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| D351     | MAZ41500MF   | DIODE ZENER 15V         |         |
| D351     | B0BA01400041 | DIODE ZENER 15V         |         |

## RESISTORS

| Ref. No. | Part No.    | Part Name & Description | Remarks |
|----------|-------------|-------------------------|---------|
| R351     | ERG2ANJ153H | METAL OXIDE 2W 15K      |         |
| R352     | ERG2ANJ153H | METAL OXIDE 2W 15K      |         |
| R353     | ERG2ANJ153H | METAL OXIDE 2W 15K      |         |
| R354     | ERD25TJ272  | CARBON 1/4W 2.7K        |         |
| R355     | ERD25TJ272  | CARBON 1/4W 2.7K        |         |
| R356     | ERD25TJ272  | CARBON 1/4W 2.7K        |         |
| R357     | ERDS2TJ332  | CARBON 1/4W 3.3K        |         |
| R358     | ERDS2TJ332  | CARBON 1/4W 3.3K        |         |
| R359     | ERDS2TJ332  | CARBON 1/4W 3.3K        |         |
| R360     | ERDS2TJ331  | CARBON 1/4W 330         |         |
| R361     | ERDS2TJ331  | CARBON 1/4W 330         |         |
| R362     | ERDS2TJ331  | CARBON 1/4W 330         |         |
| R363     | ERDS2TJ101  | CARBON 1/4W 100         |         |
| R364     | ERDS2TJ101  | CARBON 1/4W 100         |         |
| R365     | ERDS2TJ101  | CARBON 1/4W 100         |         |

## CAPACITORS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| C351     | F1D1H561A012 | CERAMIC 50V 560PF       |         |
| C352     | F1D1H561A012 | CERAMIC 50V 560PF       |         |
| C353     | F1D1H681A012 | CERAMIC 50V 680PF       |         |
| C354     | F1B3D1020008 | CERAMIC 2KV 1000PF      |         |

## PIN HEADERS

| Ref. No. | Part No.     | Part Name & Description | Remarks |
|----------|--------------|-------------------------|---------|
| P353     | K3B09CA00005 | CRT SOCKET              |         |

## MISCELLANEOUS

| Ref. No. | Part No.  | Part Name & Description | Remarks |
|----------|-----------|-------------------------|---------|
| 153      | TMM7443-1 | CLAMPER                 |         |